# AGRICULTURAL HISTORY

Volume 30 Number 4

October 1956

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Published Quarterly

*by*

THE AGRICULTURAL HISTORY SOCIETY

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# AGRICULTURAL HISTORY

## The Quarterly Journal of the Agricultural History Society

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*Agricultural History* is published for the Agricultural History Society at the Antes Printing Company, Evansville, Wisconsin.

Entered as second-class matter on October 12, 1928, at the post office of Baltimore, Maryland, under the Act of March 3, 1879. Re-entered July 20, 1955, at the post office at Evansville, Wisconsin.



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# SIX DECADES OF RUGGED INDIVIDUALISM: THE AMERICAN NATIONAL CATTLEMEN'S ASSOCIATION, 1898–1955*

CHARLES A. BURMEISTER

*Washington, D. C.*

The beef cattle industry in the western range states had its beginning when the early Spanish colonists brought cattle into Texas and California, but it was not until the first emigrants headed westward from the Missouri River that the industry began to develop in the plains and mountain country of the West. The big expansion there got under way shortly after the Civil War when Texas cattlemen, seeking grass and markets, began their great drives northward into Kansas, Colorado, western Nebraska, Wyoming, and Montana. Reports of the fabulous profits to be obtained from cattle raising soon brought men and capital from the East and the British Isles.

As stated by Ernest S. Osgood in *The Day of the Cattleman*, "The physical basis of the industry that so quickly developed was the public domain where one man's right to free grass was as good as another's." This basic concept and the economic philosophy it generated quickly led to conflicts for the use of the range, to overstocking and ultimately excessive production for the available outlets for cattle. These conditions forced group organization for mutual self-protection, although the cattlemen by nature and environment were strongly individualistic and preferred to operate strictly independently of each other. Yet they were always ready to give assistance to a neighbor when needed.

Group action was necessary to protect their herds from cattle rustlers, Indian raids, and contagious diseases. Normally, the government would be expected to provide this protection but in such sparsely settled areas its powers were too weak and the stockmen had to take over this task themselves. Since the range was unfenced, the cattle of different owners became intermixed and this necessitated establishing ownership identity of unbranded animals when the cattle were rounded up for branding, or for sale or shipment to market. To protect his interests, it was essential that each owner or his representative attend and participate in the round-ups.

Group action for self-protection led to the formation of local and state or territorial organizations. Wyoming cattlemen organized an association late in 1871. Early in the following year, two associations were formed in Colorado. The Cattle Raisers' Association of Texas was organized in 1877, primarily to combat cattle rustlers who were becoming increasingly defiant of law and order.

Outbreaks of contagious diseases among the range herds, such as Texas fever transmitted by ticks, and pleuro-pneumonia carried by cattle shipped from the East, prompted western cattlemen through their associations to take action for disease control, and this was the primary motive in the first attempt to organize a national association of stockmen. Representatives from midwestern and northern range states met at Chicago in late 1883 to urge the enactment of laws to control animal diseases so as to induce the removal of embargoes imposed by several European countries on the importation of livestock and animal products from this country. While assembled there they formed an organization which was given the name "The National Cattle Growers Association." Texas cattlemen refused to participate in this meeting because they feared that action would be taken to restrict the movement of their cattle which were known to carry the Texas fever disease that caused great losses in northern cattle exposed to it.

Early in 1884, the Southwestern cattlemen began to agitate for the calling of a meeting which they hoped would be more representative than that held the previous year in Chicago. At the same time, those who had attended the first meeting planned for a second meeting in Chicago in November. The two groups finally got together in St. Louis but were unable to establish harmonious relations and perfect an organization, although they

* This paper was presented as the presidential address at a meeting of the Agricultural History Society in Washington on December 28, 1955.

approved a resolution urging Congress to establish a National Cattle Trail from Texas to the northern ranges.

Will C. Barnes, a longtime cattleman in Arizona and New Mexico and for many years in charge of grazing investigations in the U. S. Forest Service, refers in one of his articles to having attended a meeting of the National Live Stock Association in Kansas City in January 1890. This Association apparently was not long active after that year. The decline in cattle prices following the boom in the early eighties and the general economic depression which prevailed until 1896 made it difficult for it to function and hold its membership.

In November 1897, a joint committee of the Denver Chamber of Commerce and the Colorado Cattle Growers Association issued a call for a national convention "to perfect the organization of a national stock growers association and to discuss and devise measures for the protection of the livestock industry." Significantly, the call stated that "It would be well to direct the results of the meeting so as to influence the Government at Washington to grant relief where needed and by mutual concession bring about the greatest benefit to all concerned." Invitations were sent to federal and state officials, all livestock associations, numerous individual breeders and owners of each class of livestock, and to livestock commission men, meat packers, and representatives of the public stockyards and railroads.

In response to the call, more than 1,000 delegates from 28 states convened in Denver on January 25, 1898 and were welcomed by the Governor of Colorado. John W. Springer of Denver, a member of the committee that arranged for the meeting, was elected Chairman and later President of the newly formed Association. He was a gifted orator who quoted freely from poetry and the classics, and was active in Republican politics.

Among those present at this first meeting was "Uncle" Henry Wallace of Iowa whose son and grandson in later years served as Secretary of Agriculture, the first as a Republican and the second as a Democrat. Another notable character was Colonel J. B. McCoy of Kansas who was one of the first to take Texas cattle to the Corn Belt and wrote one of the first books dealing with the cattle industry of the West and Midwest.

In drafting the constitution and by-laws of the new organization, there was much discussion of membership eligibility, dues, and finances. Since emphasis had been placed on bringing together the state and local associations into a single national organization, it was decided to admit them, as well as individuals, and have the dues for the member associations vary according to the number of delegates each sent to the annual meetings. It was also decided to extend membership to the representatives of the transportation companies and the livestock commission agencies and packers, as well as to growers and finishers of livestock. Six years later, in 1904, this was to cause a schism in the organization which ended in a reorganization, a change in name, and the restriction of membership to those engaged in producing and finishing livestock.

The resolutions presented and adopted at this first meeting were few in number compared with those presented and approved at subsequent meetings. One expressed approval of retaliatory laws passed by Congress against countries that sought to prohibit the importation of livestock and livestock products from the United States. Another urged the Secretary of Agriculture to collect and disseminate more statistics on the livestock industry. Interest in disease control was indicated by the endorsement of governmental action in prohibiting interstate traffic in scabby sheep and the efforts made to discover a satisfactory dip for eradication of scab; also by a commendation of the work done in eradicating ticks in Southern cattle. Resolutions on railroad freight rates and transportation service, a topic of major interest to the members in the years ahead, urged that feeding-in-transit rates be provided and that freight rate on livestock be based on cars 36 feet in length with percentage adjustments for cars of other lengths. A resolution favoring transfer of ownership of the public lands to the states proved to be highly controversial and was not approved. This subject was to come up for consideration at subsequent meetings for many years.

During the first six years after the new organization was formed, the man who probably contributed most to keeping it alive and functioning was its executive secretary Charles F. Martin who had served as press secretary at the first meeting. He apparently had great energy and a warm and friendly personality but was seriously handicapped by ill-health caused by tuberculosis. He devoted much time to trying to build up the membership and get the members to contribute to the

financial support of the Association. But dues and promised subscriptions were slow in being paid and some of the member associations were threatening to withdraw. In the summer of 1904, he made a special effort to get contributions on the basis of the number of animals owned by the members, and obtained less than $1,000. He died in September of that year following a hemorrhage while enroute by train to Cheyenne.

When the Association met in January 1905 after Martin's death, considerable dissatisfaction was evident among the members. Many of the cattlemen felt that the Association was being dominated by other groups, particularly the packers, railroad representatives, and market agencies, and that these groups were not sympathetic to the interests of the cattlemen, especially when they involved improving transportation service and marketing conditions and obtaining more favorable freight rates. Relations between the cattlemen and sheepmen were frequently not harmonious and the membership included both groups.

The cattlemen under the leadership of Murdo Mackenzie, manager of the Matador Land and Cattle Company of Texas who resided at Trinidad, Colorado, were for limiting membership in the Association entirely to producers and finishers of livestock and excluding other groups. Frank J. Hagenbarth of Salt Lake City had succeeded John W. Springer as President of the Association, and, although interested in both cattle and sheep, was probably more of a sheepman than a cattleman. He apparently was not fully in agreement with the desires of the cattlemen and made a strong effort to hold the Association together as originally organized.

After two days of bitter debate and much wrangling, the cattlemen left the meeting and formed the American Stockgrowers Association with Mackenzie as President. Later that year, representatives of the two associations got together and adjusted their differences, and in January 1906 the two were reorganized into one association under the name of the American National Live Stock Association, with the membership limited to the growers and finishers of livestock and their state and local associations. Many years later, in 1952, the name was changed to the American National Cattlemen's Association because the Association represented principally cattlemen and their interests, and the original name was confusing to those not aware of this.

Mackenzie was elected President of the reorganized association and after serving two years was succeeded by Henry A. Jastro, manager of a large enterprise in California, who served until 1911 when Mackenzie was again chosen for several terms and in turn later succeeded by Jastro. These two men, one a Scotsman and the other of German parentage, undoubtedly had unusual talents for leadership. They were big men physically and made an impressive appearance. Both contributed liberally of their personal funds and of their time and energy in striving to further the interests of the Association and in directing its affairs. Their presidential addresses delivered at the annual meetings indicated that they had an unusually thorough understanding and knowledge of economic principles and world affairs and could express their ideas clearly and concisely.

Following the reorganization in 1906, the Association employed T. W. Tomlinson, a railroad traffic expert from Chicago, as Secretary and Sam H. Cowan of Fort Worth, Texas, as Attorney. These men continued in these positions until their demise in 1928. Cowan, always referred to as "Judge" was a dynamic individual, skilled in debate and extemporaneous speaking, and an expert on railroad rate regulation and transportation law. He represented the Association in Washington in all hearings and legislative matters in which it was interested, and directed the Association's efforts to obtain better railroad service and more favorable freight rates for the livestock industry. Railroad officials who had dealings with him had great respect for his skill and ability as an opponent. Much of what the Association achieved during the period he was its attorney was due to his efforts in its behalf.

After the passing of Cowan and Tomlinson in 1928, the Association employed Charles E. Blaine of Phoenix, Arizona, to represent it in all matters pertaining to freight rates and transportation service, and F. E. Mollin of Nebraska as Executive Secretary. Both men still hold these positions.[1]

Mollin, in addition to handling the secretarial duties performed by Tomlinson, also took over the responsibilities assumed by Cowan in looking after legislation pending

[1] At the annual meeting of the Association held in January 1956, Mr. Mollin retired as Executive Secretary and took over the position of Treasurer. The Assistant Executive Secretary, Mr. Radford Hall, became Executive Secretary.

in Congress and in dealing with the executive branches of the government in Washington. Over the years this necessitated that he spend much time in Washington, mostly to oppose legislation and governmental regulations considered to be inimical to the interests of the cattle industry, particularly of the cattle producers located in the western range country.

The record of the Association's activities, policies, and accomplishments in the 58 years since it was organized, as presented in the published proceedings of its annual meetings, its monthly publication, "The American Cattle Producer," and the reports and addresses of its officers, indicates that its activities might logically be grouped into six periods of time as follows:

1898–1914 Organization and consolidation. The ending of the pioneer development of the range country.
1915–1922 World War I and its postwar adjustments.
1923–1932 Normalcy, boom, and bust.
1933–1941 Depression, drought, and New Deal.
1942–1952 World War II controls and postwar adjustments.
1953–1955 Public relations, research, and beef promotion.

During the first of these periods the Association concentrated primarily on railroad rate regulation and service, regulatory control of grazing on the national forest reserves, the utilization of the lands in public domain and the regulation and control of this use, the export and import trade in livestock and livestock products and the factors affecting it, and the eradication and control of animal diseases.

In its efforts to get better transportation service and more favorable freight rates on livestock, the Association worked for amending the 28-hour law and finally succeeded. The amended law permitted a shipper to sign a release authorizing the railroad carrier to retain stock in the cars for 36 hours before having to unload for feed, water, and rest. The eight hours additional time was intended to make it possible for a train to reach its final destination without having to unload, but after the amended law became effective, the stockmen claimed that the railroads took advantage of the extra time granted and gave even slower service than before.

The Association was active in supporting passage of the Hepburn Act of 1906 which greatly increased the powers of the Interstate Commerce Commission to regulate railroad rates. This law was strongly urged by President Theodore Roosevelt as necessary to curtail the powers of the railroads and, since he was greatly admired by the western stockmen, it was only natural that the Association would give him its support.

The Association also urged Congress, but without success, to enact laws requiring the railroads on request of a shipper to furnish cars for transporting livestock and other perishable products and to maintain minimum average speeds of trains between loading point and destination. These demands were made because stockmen frequently found it difficult to get cars when wanted during the fall shipping season, and they often experienced costly delays in getting their stock to market after the cars were loaded.

Advances in freight rates and charges were continuously opposed during these early years and also in subsequent years. Since the railroads were frequently increasing or attempting to increase their rates, the Association has always found it necessary to be active in this field of looking after its members' interests. As part of its activity in opposing rate increases, the Association urged Congress to enact legislation providing for valuation of railroad properties since the question of value was always an important factor in rate litigation.

Prior to 1905, the national forest reserves which had been created by Act of Congress in 1891 were under the control of the Department of Interior, and the western stockmen were generally critical and dissatisfied with the way they were administered, particularly with reference to the use of the reserves for grazing purposes. One of the first actions of the Association after it was formed was to press for the transfer of the reserves to the Department of Agriculture and for a change in administrative policy. The transfer was effected February 1, 1905 and Gifford Pinchot placed in charge. He developed an administrative program of controlled grazing that soon proved to be acceptable to the majority of the stockmen and for several years the Association expressed its approval of the program and the Forest Service in commendatory resolutions at its annual meetings. After World War I, and especially in more recent years when the grazing privileges on the reserves were curtailed and further restrictions placed on the number of animals that could

be carried, the Association became quite critical of administrative policies. Currently, however, relations are much improved over those of a decade ago.

The lands included in the public domain in the West were, as stated earlier, the physical basis of the cattle industry in that area, and in consequence they have long been a subject of great controversy as to how they should be used and administered. At the time the Association was formed, many were of the opinion that title to the public lands should be transferred to the states in which the lands were located. Many of the cattlemen, especially the larger operators, were in favor of a long-time leasing program which would insure the lessee reasonable security in the use of the land for a period sufficient to justify investing in improvements, such as fences and water resources, necessary to the effective utilization of the land. Small operators and prospective homesteaders were opposed to leasing because they were fearful it would give the larger operators too much control to the disadvantage of the smaller man and would prevent homestead entries. The sheepmen, being largely nomadic and continually moving their flocks from area to area seeking the best grazing available, were generally opposed to any form of control in the use of the domain.

Naturally, the stockmen's Association was vitally interested in the public domain and the policy to be adopted as to its utilization, management, and control, and this was a major topic for consideration and discussion at every annual meeting prior to World War I and to a lesser extent in subsequent years until the passage of the Taylor Grazing Act in 1934. At the meetings held in 1907, 1908, and 1909, the use and control of the lands were discussed at great length and the Association endorsed a bill which would authorize transfer of administrative control to the Department of Agriculture and 10-year leasing for grazing purposes, yet permit homestead entry. At later meetings, the Association modified its stand and adopted resolutions commending and supporting the conservation policies advocated by President Theodore Roosevelt and urging that control over the public lands be provided.

Presumably, because of the wide differences of opinion throughout the West and elsewhere as to the most desirable form of control of the public grazing lands, no laws for such control, other than the unsatisfactory Grazing Homestead Act of 1916, were enacted until 1934, when Congress passed the Taylor Grazing law. This law authorized grazing districts embracing around 80 million acres and provided for administrative control by local cooperative groups using the lands.

From the time of its formation, the Association has been concerned with both export and import trade in livestock and livestock products, and for this reason it has always taken a position on legislation pertaining to tariffs, trade agreements, sanitary measures and other restrictions and factors that might affect such trade. As the trade position of this country changed over the years, the Association tended to reverse its position to some extent and its present attitude appears to be somewhat different from that of 50 years earlier. At that time, this country was a large exporter of both live animals and meats, sending around a half million live cattle yearly to Great Britain, and considerable quantities of meat products, especially pork and lard, to Germany. On the other hand, it imported large quantities of hides and skins for use in the leather industries. The cattlemen, therefore, favored a duty on hides in the belief that it would result in higher prices paid here for cattle. But they were opposed to high duties on manufactured goods imported from the countries which imported meats and livestock from this country since they were fearful that such duties would cause these countries to buy their meats elsewhere. The Association in the early years, therefore, was opposed to the high tariff policies of Eastern manufacturers and in favor of reciprocal trade agreements and tariff concessions with those countries that would agree to buy meats and livestock from this country. Resolutions indicating this position were approved at most of the annual meetings until about 1910 when exports of beef and live cattle from this country practically ceased.

During the years since World War I, the Association has maintained a policy of advocating high duties and sanitary restrictions on meat imports even though in most years such imports have been comparatively small in relation to domestic production and consumption. Sanitary restrictions have been advocated primarily as a safety measure in the prevention of outbreaks of dangerous infectious diseases, particularly foot-and-mouth disease, rather than as a means of reducing the competition from imports.

The Association at times has advocated a

"Buy American Policy" in connection with the purchase of meats for the use of the army and navy but this usually has been only when livestock prices in this country were depressed and the demand for meats unfavorable.

The Association has generally been constructive and progressive in its policies with respect to the control and eradication of animal diseases and has shown a willingness to cooperate fully with state and federal agencies responsible for such controls. Most stockmen fully appreciate the necessity of preventing the spread of contagious diseases and protecting the health of animals and are willing to take all the precautions needed to accomplish this.

During the years from 1914 to the early twenties (World War I and postwar adjustments), the Association broadened its activities and interests to include consideration of market conditions, packer control of market facilities, and meat distribution. Meat prices had risen during the period 1912–1914 as a result of reduced numbers of livestock on farms and reduced supplies for slaughter, and this brought numerous complaints from consumers. The large packers were accused of monopolistic control and were frequently alluded to in the press as "the meat trust."

At the 1914 annual meeting of the Association, E. L. Burke of Omaha presented data showing the growth of the large packers since 1905 through plant acquisition and referred to their control of the public stockyards and other market facilities. He and J. B. Kendrick, later U. S. Senator from Wyoming, were appointed on a committee to investigate and report the following year.

At the next annual meeting, the Committee on Stockyards and Live Stock Exchanges headed by A. E. deRicqles of Denver reported further on packer control of many of the facilities at public markets, including banks, cattle loan companies, and market papers, and stated that the marketing problem was the most important one to be considered by the Association. In November of that year, the Association got the Secretary of Agriculture to call a livestock marketing conference in Chicago which was presided over by Charles J. Brand, Chief of the newly created Federal Bureau of Markets, but few if any packer representatives participated in the meeting.

At the annual meeting of the Association held in January 1916 at El Paso, Texas, deRicqles and Burke spoke in great detail and with much emphasis on packer control of market facilities and the need for action to correct the situation. Burke suggested nine possible steps the Association might take but at the same time pointed out the limitations of each. He recommended the establishment of a market paper owned and controlled by the producers as probably the most practical step to take and thought that it would involve a minimum of risk and expense.

The Association's Market Committee recommended the appointment of a committee to make an investigation, the construction and operation of municipal abattoirs, the publication of a market paper, a governmental program of collecting and disseminating information on price margins and supplies of meat on hand, action to divest the packers of ownership and operation of stockyard terminals and exchange buildings, and federal and state supervision of methods and practices at the markets.

In response to the various recommendations offered, the Association approved a resolution endorsing the Market Committee's report and requesting that the Executive Committee take the necessary steps to carry out the recommendations.

Congress that summer authorized an appropriation for the establishment of a federal market news service on livestock and meats, a service which has been greatly expanded since it was started in 1917. During the next two years, the Federal Trade Commission conducted an extensive investigation of the meat packing industry. Later, Congress passed the Packer and Stockyard Act placing regulatory control of the packers and market agencies in the Department of Agriculture. Then, as a result of action by the Department of Justice, the five big packers agreed under the Packer Consent Decree not to engage in certain activities and to give up ownership and control of some facilities. The Association claimed no credit for this latter action, particularly the agreement of the packers not to engage in the retail selling of meats, as it had long advocated that the packers be permitted to do this in the belief that it might result in higher prices for livestock.

Another development during this period was the establishment of co-operative marketing agencies by producer groups although the Association itself took no active part in their formation.

All the developments enumerated here were followed in time by marked changes in conditions at the public markets and in the meth-

ods and practices of marketing livestock. Not all the changes, however, could be ascribed to these developments. One change was the great increase in selling livestock direct from producer to packer or other buyer at points other than public stockyard markets. The Association maintained that the producer should have the privilege of selling his livestock wherever he pleased and has continued to oppose all efforts to restrict or curtail direct selling.

Following the period after World War I, during which the Association was centering its attention on the market situation and the meat packers, its activities were largely routine and concerned primarily with tariffs on imported meats and animal products, railroad freight rates, sanitary restrictions to prevent outbreaks of foot and mouth disease, stockyard rates and commission charges at public markets, government beef grading, and the perennial problem of the public domain and its control and utilization. The sharp drop in livestock prices from 1929 to 1932 as a result of the worldwide depression diverted attention to the problem of checking the decline and bringing about recovery.

The depression brought the philosophy of the New Deal into the administration of the federal government, with all its controls and regulations of industry and the individual. The Association and its members reacted, with the spirit of rugged individualism of those who had founded their industry, by vigorously opposing the inclusion of cattle as a basic commodity under the Agricultural Adjustment Act, subject to the controls of the programs under its provisions. As an alternative, the Association advocated legislation to restrict imports of beef and competing fats and oils, to raise the tariff on hides and to lower the costs of transportation and marketing and foster orderly marketing. Congress deferred to the request that cattle not be included under the Agricultural Adjustment Act and this left marketing agreements with processors as the only possible means of extending federal aid to the industry under the Act. A draft of a proposed marketing agreement was submitted by the packers but was never approved by the Secretary of Agriculture because of inability to reach agreement on provisions authorizing the inspection of the processors' books and records.

In the meantime, the rapidly developing widespread drought and the continuing decline in prices, combined with increasing cattle numbers, made the situation in the industry extremely critical. At the annual meeting held at Albuquerque in January 1934, the Association members were sharply divided on the issue of including cattle as a basic commodity under the Agricultural Adjustment Act. Those opposed demanded that the Association take a definite stand but the final decision was to approve the recommendation of the special committee to refer it back to each state organization for individual action. The special committee was instructed to continue to act for the Association, and, working with representatives of other groups, they developed a plan to make cattle a basic commodity and the Agricultural Act was amended accordingly in April 1934.

Before a cattle adjustment program could be developed and submitted to the producers for approval, the drought situation had become so serious as to compel the inauguration of an emergency government purchase program for cattle as a means of providing assistance to producers. During a period of less than eight months, more than 8 million cattle and calves were purchased and slaughtered and the beef obtained therefrom was distributed to needy families on relief. The program resulted in reducing cattle numbers by more than 5½ million head. The greater part of this reduction was in beef cattle in the area west of the Mississippi River. It so changed the economic situation of cattle producers that no further effort was made to develop a production program under the Adjustment Act. In January 1936, the Act was ruled to be unconstitutional by the Supreme Court. The feature of the adjustment programs to which the cattlemen objected most strongly was the processing tax levied to finance the programs. The drought thus made it possible for them to escape the experience of the hog producers who soon learned that the processing tax was deducted from the prices paid producers and was not shifted to the packer or the consumer as they had been told would occur by those who advocated the adjustment programs.

During World War II, price controls and meat rationing were generally disliked by the cattlemen and when the war ended they made vigorous efforts to get the controls discontinued as quickly as possible. When controls were resumed during the Korean incident in 1951, they again expressed their opposition and worked for their speedy termination.

During recent years, the Association has focused its attention on public relations, beef

promotion campaigns, and the encouragement of research which gives promise of beneficial results to the cattle industry. With the marked improvement in the quality of range cattle, as a result of using better breeding stock, most of these cattle now go to feedlots for further finishing on grain and concentrates instead of direct to slaughter off of grass as in the early days of the industry. This means beef of much higher quality for the consumer and a great expansion in the cattle feeding industry. In recognition of this development, the Association has organized a Feeder Committee to work with and establish better relations with those who finish out the cattle in the feed lots.

In the last decade, the Association has expanded its membership to include cattlemen and their associations in most of the Southern states where cattle production has increased greatly in recent years. Thus it no longer represents only the cattlemen of the Western range country where early major problems were regulation and control of the national forests and the public domain, and obtaining satisfactory transportation service at reasonable rates. Neither can it be said that it represents only the larger operators as often charged in the earlier years when this group provided most of its funds and leadership and kept it from passing out of existence.

To the Association's credit can be listed the nationwide government market news service on livestock and meats, government grading of meats that was developed in connection with this news service, the Packer and Stockyard Regulatory Control Act, legislation to prevent the entry of dangerous livestock diseases from other countries, and to a considerable extent the improved methods of regulating the utilization and control of the public lands in the West now in effect. Those who guided the Association in attaining these objectives were rugged individualists but they also were men who were willing to work together to correct the evils in their industry and put it on a better basis in every way.

## FREE LAND, FREE LABOR, AND THE FREEDMEN'S BUREAU

MARTIN ABBOTT

*Oglethorpe University*

Reduced to its simplest terms, the aim of the Freedmen's Bureau was to offer a short cut to civilization for the South's four million freedmen. The task would prove no less a demanding responsibility than a challenging opportunity; it would call for understanding, a high degree of patience and no small measure of dedication. Success in the endeavor would not be measured in unfeeling statistics, but in terms of the human equation. Ahead of the Bureau lay the formidable work of guiding and encouraging the former slaves as they strove to adjust to their new world. In short, the agency must seek to organize freedom for an entire people. If its mission was successful, the meaning of liberty would be greatly enriched for those who were coming forth from bondage.[1]

A short time after the Bureau's creation on March 3, 1865, General Oliver Otis Howard was named its commissioner with authority to choose as many as ten assistant commissioners in the various states to aid him. Within a few months, the assistant commissioners had scattered throughout their commands token forces of subordinates who were laboring to give substance to the Negroes' freedom. All of their work was important, since the Bureau was entrusted by law with the control of all matters relating to refugees and freedmen; but none was potentially more promising for the future than the questions of free land and free labor. As one of their most cherished dreams, the great majority of ex-slaves longed for ownership of the soil; to them "forty acres and a mule" symbolized the essence of liberty.

[1] This paper was presented at a meeting of the Mississippi Valley Historical Association in Madison, Wisconsin, in April, 1954. Much of the material included was drawn from the voluminous Freedmen's Bureau Records in the National Archives in Washington, D.C. Hereafter, whenever reference is made to these records, the abbreviation BRFAL will indicate that the item is among the papers relating to South Carolina; BRFAL, C.O. will indicate that it is housed among those relating to the central office of the Bureau in Washington.

Only slightly less important as an aspiration was their determination to order their own labor, for unless as free workers they were to do more than exchange thraldom's security for freedom's oppression, they would find but little meaning in their new status.[2]

A Northern reporter, noting the Negro's longing for the land, wrote that the "sole ambition" of the freedman was "to become the owner of a little piece of land, there to erect an humble home, and to dwell in peace and security at his own free will and pleasure." As a landowner, he could plant the crops he wished and cultivate them as he pleased, "without anyone to dictate to him hours or systems of labor." In a word, the reporter concluded, what the ex-slave wanted was "to be *free*, to control his own time and efforts without anything that can remind him of past sufferings in bondage."[3] Charles H. Howard, the commissioner's brother who served for a time with the Bureau, put it more succinctly when he observed that there was "a strong desire, amounting almost to a passion . . . to obtain land by lease, or to own land."[4]

It was only natural that the Negroes should have cherished the dream of possessing the soil, since most of them as slaves had known no way of life but an agrarian one. Their hope that the same government which had given them liberty would also provide free farms was encouraged by the federal invaders, who talked freely of a division of Southern lands, and confirmed by the early actions of the Freedmen's Bureau. During the course of 1865, the Bureau came into control of all the confiscated and captured property seized in the South during the war by treasury and military agents. Moreover, under authority from Congress, assistant commissioners continued to seize lands defined as abandoned: those whose absent owners presumably had given a voluntary support to the Confederacy. In all, by the end of the first summer's operation, the Bureau had under its control about eight hundred thousand acres of land and five thousand pieces of town property, the bulk of which the institution planned to make available to freedmen. Bureau officials, to be sure, were aware of Johnson's amnesty proclamation which declared that pardon carried with it "restoration of all rights of property, except as to slaves," but they were assured by General Howard that such pardons did not extend to holdings set apart by law of Congress.[5]

Assistant commissioners were enjoined by Howard to proceed as quickly as possible in dividing the lands into forty-acre plots and either leasing them to freedmen for a small rental or selling them at any time within three years for a nominal price. Officers and agents, in turn, informed the Negroes of the opportunity and urged them to take advantage of it. Rufus Saxton, who initially was assistant commissioner of South Carolina, Georgia, and Florida, announced that the Bureau there stood able and willing to undertake "the location of such as may desire it, on homes of forty (40) acres, where by faithful industry they can readily achieve an independence."[6] By the sale and rental of the lands, the Bureau hoped not only to convert the freedmen into landed proprietors, but also to provide itself with an adequate income to carry on its work. Since Congress had failed initially to furnish the agency with an appropriation, such income was of obvious importance if the Bureau was to expand its program. In all, during 1865, a sum of one hundred and twenty-five thousand dollars was realized from the leasing and sale of buildings and lands; and by 1868, the total was something over three times that amount.[7]

[2] The various acts creating and continuing the Bureau can be found in *U.S. Statutes at Large*, 13:507–509; 14:173–177; 15:193–194. Of the published accounts of the Bureau, the following are the most useful: Paul S. Peirce, *The Freedmen's Bureau: A Chapter in the History of Reconstruction* (Iowa City, 1904); George R. Bentley, *A History of the Freedmen's Bureau* (Philadelphia, 1955); Elizabeth Bethel, "The Freedmen's Bureau in Alabama," *Journal of Southern History*, 14:49–92 (February, 1948); William T. Alderson, "The Freedmen's Bureau and Negro Education in Virginia," *North Carolina Historical Review*, 29:64–90 (January, 1952); John and La Wanda Cox, "General O. O. Howard and the 'Misrepresented Bureau'," *Journal of Southern History*, 19:427–456 (November, 1953).

[3] *The Nation*, 1:393 (September 28, 1865).

[4] *Report of the Joint Committee on Reconstruction* (39 Cong., 1 sess., House Report no. 30, vol. 2, pt. 2, serial 1273, Washington, 1866), 36. See also Whitelaw Reid, *After the War: A Southern Tour* (New York, 1866), 335–336.

[5] The provisions of the confiscatory measures and a detailed discussion of them can be found in J. G. Randall, *Constitutional Problems under Lincoln* (rev. ed., Urbana, 1951), 275–280, 316–341. See also Howard's Circular 13, July 28, 1865, BRFAL, Box 496.

[6] HQR, Assistant Commissioner of S.C., Circular 1, June 10, 1865, BRFAL, Box 496. In the same box see Circular 2, August 16, 1865.

[7] *Freedmen's Bureau* (39 Cong., 1 sess., House Executive Document no. 11, serial 1255, Washing-

It appeared, thus, that the Bureau not only would remain self-supporting, but also would serve as the midwife at the birth of a Negro landowning class. By autumn of the first year, thousands of freedmen had been settled on farms and were realizing the exhilaration of cultivating their own plots of land. What the experience meant to them was expressed in their comment to a traveler, when they asked: "What's the use of giving us freedom if we can't stay where we were raised and own our houses where we were born, and our little pieces of ground?"[8]

The happy prospect proved to be illusory, however, for the creators of the Bureau had reckoned without the constitutional scruples of the President. Unlike a later chief executive, Johnson was more concerned with a theory than a condition, and so evinced an implacable opposition toward confiscation of Southern property. Annoyed by Howard's earlier order exempting Bureau-held lands from restoration by amnesty, in the early fall of 1865 he ordered the commissioner to reverse his policy. Consequently, a new directive was drawn under the critical eye of the President. Assistant commissioners were instructed to restore all confiscated property unless it had been condemned and sold by court decree, and to return all abandoned lands whenever the rightful owners offered evidence of either general or special pardon. Howard objected vigorously that the change would be financially crippling to the Bureau and severely unjust to the freedmen, but Johnson resolutely refused to alter his course.[9]

Reluctantly, then, the Bureau commenced a general restoration. By the close of 1865, about eighty thousand acres and more than one thousand town lots had been returned to their owners.[10] At the same time, agents very generally set about to undeceive the Negroes with respect to the lands being divided among them, but their success in this was never complete.

An especially complex phase of the entire land question was that having to do with the sea islands and coastal rice plantations of South Carolina and Georgia. There, some forty thousand freedmen had been settled on forty-acre plots by provision of Sherman's famous field order of mid-January, 1865, and assigned "possessory titles" to their holdings.[11] They had been confirmed in their occupancy by the act establishing the Bureau. Sherman himself had designed the measure simply as an expedient to relieve his army of the great encumbrance of Negroes who had attached themselves to it, but Rufus Saxton chose to regard the order as binding as law. Even after the President's interference to restore all abandoned lands, Saxton continued to forward each application for restoration with a standard endorsement which read in part: "The freedmen [on these islands] were promised protection of the government in their possession. This order was issued under a great military necessity with the approval of the War Dept. . . . I cannot break faith with them by recommending the restoration of any of these lands."[12]

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ton, 1866), 4–10; *Report of the Secretary of War* (41 Cong., 2 sess., House Executive Document no. 1, serial 1412, Washington, 1870), 504.

[8] *The Nation*, 1:393 (September 28, 1865).

[9] War Department, B.R.F.A.L., Circular 15, September 12, 1865, BRFAL, Box 496; O. O. Howard, *Autobiography* (2 vols., New York, 1908), 2:234–241.

[10] *Freedmen's Bureau* (39 Cong., 1 sess., House Executive Document no. 11), 10.

[11] Sherman's order is in *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies* (128 vols., Washington, 1880–1901), series 1, vol. 47, pt. 2, pp. 60–62.

[12] Endorsement of Saxton on a petition from Constantine Bailey, September 26, 1865, BRFAL, Box 496; *The Nation*, 1:515 (October 26, 1865).

[13] War Department, B.R.F.A.L., General Order 145, October 9, 1865, BRFAL, Box 496; *Freedmen's Bureau* (39 Cong. 1 sess., House Executive Document no. 11), 6–8; Henry Tremain, *Two Days of War: A Gettysburg Narrative and Other Excursions* (New York, 1905), 259–264; *Charleston Courier*, November 25, 1865.

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Ultimately, the impasse was resolved during the course of 1866 through the removal of Saxton and his replacement with a more cooperative officer, Robert K. Scott. The new assistant commissioner, prodded by the federal commander in the state, devised two basic regulations that in time brought a solution. First, possessory titles, to be valid, must be held by freedmen who had cultivated a crop on the land during 1865 and who had settled upon the assigned plantation—rather than, as often had happened, holding a certificate for one plot and settling upon another. Second, those freedmen holding invalid grants, or none at all, must contract with the planters or be ejected by military force. Through enforcement of these regulations, Bureau agents and officers were able to reduce the total of legal titles to about sixteen hundred. Final disposition of that number was made early in 1867 when holders of valid certificates were ordered to exchange them for grants of land in the Hilton Head region to which the federal government had acquired definite title. Those refusing to make the exchange were forcibly removed from their holdings.[15]

With this episode ended the laudable effort to underpin the Negroes' freedom with economic self-reliance. By the close of 1868, of the original eight hundred thousands acres of land and five thousand pieces of town property once held, the Bureau had remaining but one hundred and forty thousand of the former, and eight hundred of the latter; and at the close of the year, agents were instructed to restore what was left or to drop it from Bureau rolls.[16] For the freedmen it was a frustrating, not to say embittering, experience to have been so close only to end so far from their dream of "forty acres and a mule." Expressive of their feeling was the moving if ungrammatical petition sent by one group to Johnson. They addressed the chief executive, they wrote, because of the sadness "now resting upon our minds" and because of the distress they felt over the prospect of having to work "for wages for our former oners [*sic*] or any other man." They ended their appeal by imploring the President to give them "a Chance to Recover out of this trubble" by providing each of them an acre and a half of land apiece.[17] A handful of freedmen were aided by the Bureau in securing homestead entries on the public lands in the lower South; but the great majority, like their fathers before them, were destined to go on tilling the soil for someone else.

During the same time that the Bureau was attempting to furnish land to the Negroes, it was also undertaking to direct their transformation from bondsmen to free laborers. Actually, such a program had been launched by the military in some areas of the South during the war; then upon the close of hostilities federal commanders in the various states had scattered small detachments of troops throughout their commands to supervise labor agreements between the freed slaves and the returning planters. Negroes were informed of their new rights, but at the same time impressed with their enlarged obligations; as one speaker told them, "Freedom allows you to work, allows you to play, and allows you to starve if you wish."[18] The whites were ordered under threat of military arrest to enter into equitable contracts with the freedmen, and to recognize by their conduct the actuality of emancipation.[19]

When Bureau officials took over the supervision of the system, they followed in general the example of the military in declining to adopt hard and fast regulations governing the details of agreements. Commissioner Howard, for instance, steadfastly refused to suggest even a minimum wage for laborers on the reasoning that local agents who were conversant with varying conditions could best attend to the matter. He feared, too, that a minimum, once established, would tend to become the maximum. Instead, he insisted simply that all agreements be just, that they provide for a real freedom, and that they be impartially enforced upon both parties.[20] To superintend

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[16] *Report of Major General O. O. Howard, Commissioner of Bureau of Refugees, Freedmen, and Abandoned Lands to the Secretary of War, October 14, 1868* (40 Cong., 3 sess., House Executive Document no. 1, serial 1367, Washington, 1869), 1016–1017.

[17] Mary Ames, *From a New England Woman's Diary in Dixie in 1865* (Norwood, Massachusetts, 1906), 100–113.

[18] Mansfield French, *Address to Masters and Freemen* (Savannah, 1865), 11.

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the making of agreements each Bureau agent was authorized to erect a board of himself and two local citizens with the power to settle any labor disputes that might grow out of the contracts. Funds for operating such a program were to be secured by charging the planters a fee ranging from ten to fifty cents for each freedman employed. After the first few months, the scheme of creating supervisory bodies fell into disuse, and thereafter Bureau officials acting alone approved or rejected the contracts.[21]

Fundamentally, the Bureau's responsibility in this matter was that of trying to impose order upon chaos. Its mission was not simply a matter of informing the Negro that he was free to work where and for whom he pleased; rather, the agency had the stupendous job of delineating in detail his rights and responsibilities as a workingman, and of establishing a program to insure an enjoyment of the one and a discharge of the other. It had also the formidable task of trying to transform ingrained habits and inherited prejudices of former masters into a realistic acceptance of the new order.

Numerous difficulties beset the agency during 1865 as it labored to fashion an equitable system of contract labor. The ravaged condition of many parts of the South meant that terms of labor would be determined by the force of circumstance and not by any program of the Bureau. Another problem was that of insufficient operational funds, particularly after the President intervened to effect a general restoration of property, thereby depriving the agency of the bulk of its income. Assistant commissioners were unable to recruit an adequate number of subordinates, with the result that in many sections the Bureau had no representation at all. The military, it is true, afforded some help by making part of its personnel available, but even so, the number of Bureau officials remained hopelessly small.

A final problem of the Bureau was that having to do with the planters and the laborers themselves. "The two great obstacles which confronted . . . [agents and officers] at every turn," wrote W. E. B. Du Bois, "were the tyrant and the idler: the slaveholder who believed slavery was right . . . , and the freedman who regarded freedom as perpetual rest."[22] The Black Codes, perhaps well-meaning in intent, stand as proof that the white leaders of the various states were less than willing to accord the Negro the full enjoyment of his freedom. The repeated instances of Negroes drifting aimlessly about, while doubtless overdrawn, reveal all too clearly that many looked upon liberty as tantamount to license and loafing as the substance of freedom. After touring parts of the South for some three and a half months, Sidnew Andrews wrote that it was "painfully certain that, next to teaching the whites that the negro is a free man . . . , the hardest work before the North now is to teach the negro what constitutes his freedom."[23]

Yet in spite of all adversities, the Bureau by the close of 1865 had succeeded in supervising thousands of agreements between planters and laborers. From state to state and region to region, contract terms varied enormously, though in most instances they appear to have called for some kind of sharecropping arrangement. Depending upon the concession he received in the way of clothing, firewood, and garden plots, the freedman might receive as little as one tenth of the crops; if his extra privileges were few, he might get one third, and in rare instances, as much as one half. Sometimes the contracts called for a monthly wage, ranging from seven to fifteen dollars for able-bodied males, and five to twelve dollars for women. A final scheme of rather limited usage provided that laborers be compensated weekly for the tasks performed. For such work as banking and planting, the rate was fifty cents; for hoeing and plowing, twenty-five; and for picking cotton, two and a half cents a pound. In some states, a slight modification of this scheme was that whereby workers at the end of each workday were given tickets of various colors, depending upon the amount of work done, to be presented at the end of each month for wages.[24]

Contrary to common belief, both the military and the Bureau in 1865 approved con-

[21] Rufus Saxton to E. A. Kozlay, October 20, 1865, BRFAL, Box 533; O. O. Howard to Rufus Saxton, June 29, 1865, BRFAL, Box 473; Peirce, *The Freedmen's Bureau*, 132–139.

[22] W. E. B. Du Bois, "The Freedmen's Bureau," *Atlantic Monthly*, 87:361 (March, 1901).

[23] Sidney Andrews, *The South since the War, as Shown by Fourteen Weeks of Travel and Observation* (Boston, 1866), 98.

[24] For typical contract terms in South Carolina, see BRFAL, Boxes 486, 506, and 545; for the arrangements in other parts of the South, see Reid, *After the War*, 488, 561; Andrews, *South since the War*, 99, 183–190, 322; Bentley, *A History of the Freedmen's Bureau*, 85–86, 148–151.

tracts with clauses that might well have been drawn from the Black Codes. Besides pledging to abstain from drunkenness and "other gross vices," freedmen sometimes had to promise that they would have no unauthorized visitors, that they would keep no firearms, and that they would not leave the plantation without permission. In addition, they were often penalized for time lost by having deducted from their wages from fifty cents to two dollars a day, depending upon whether the absence was involuntary or willful.[25]

Such in essence was the contract labor system as evolved in the months after Appomattox. From this time until the Bureau's effectual disbandment three years later, the pattern remained substantially unchanged, though of course some modifications were introduced. During the course of 1866, payment of money wages appears to have been tried more extensively than before, but on the whole, this scheme seems to have worked less well than payment in kind. Thereafter, cropsharing became the rule generally, with the freedmen most commonly receiving one third of the harvest if they furnished their own rations or one fourth if they did not. Another change of note resulted when those early provisions restricting the freedmen's liberty were dropped at the insistence of the Bureau. Finally, the Bureau's practice of fee-charging for approving contracts was abolished in 1866, thereby rendering the entire system more palatable to the planters.[26]

In enforcing the terms of labor agreements, the Bureau relied to some extent upon provost courts and upon special freedmen's tribunals. But most often, responsibility for enforcement rested with the individual Bureau officials. While authorized to call upon post commanders for troops if necessary, they were urged after 1866 to turn over to native magistrates those cases involving Negroes so long as the magistrates appeared to be men of even-handed justice. It was by no means unknown for agents to employ soldiers in forcing planters to treat their workers humanely, or in ejecting irresponsible freedmen from the plantations, but such instances seem to have been rare. Agents were usually able to adjudicate disputes satisfactorily, and a few, like the exceptional John W. De Forest in South Carolina, were eminently successful in working with local judicial officers to insure fair treatment of both races.[27]

Successive crop failure in 1866 and 1867 aggravated and intensified the problem of enforcement.[28] Worm ravages, excessive rains, prolonged droughts, and floods, all produced planting results that were disappointing to laborers and nearly disastrous to planters. Under such conditions, crimination and recrimination between employer and worker inevitably became widespread. Planters held conventions to resist the workers' demand for higher wages, while Negroes not infrequently attempted to better their lot by mass migration or by public meetings; whites accused freedmen of general shiftlessness, while freedmen complained that whites drove them from the plantation before the crops could be harvested.[29] More than once the tension threatened to erupt into open violence.

Such was the magnitude of the major problems before the Bureau during its four-year effort to establish an equitable system of contract labor. Opinion was and has remained divided over the degree of its success in solving these problems prior to its disestablishment. Certainly, there were signs that the Bureau's midwifery had brought forth a deformed and misshapen infant of free contract labor. Generals Steedman and Fullerton, during their famous tour of inspection, harshly criticized the agency for its ineptitude in this respect; large numbers of planters, representing probably a majority sentiment, declared flatly that freedmen had been encouraged in idleness by agents and officers; and most Southern newspaper editors bitterly assailed the institution for having done more harm than good.[30] Even so moderate a man as Wade Hampton referred to the Bureau as a

[25] Specific examples of such arrangements can be found in the following: George H. Nye to Rufus Saxton, August 22, 1865, BRFAL, Box 487; Ralph Ely to Rufus Saxton, November 22, 1865, BRFAL, Box 545; contract of I. W. King with his freed workers, 1865, BRFAL, Box 520.

[26] Ellis M. Coulter, *The South during Reconstruction, 1865–1877* (Baton Rouge, 1947), 70–112; Peirce, *The Freedmen's Bureau*, 141-142.

[27] Bentley, *A History of the Freedmen's Bureau*, 152–168; John W. De Forest, *A Union Officer in the Reconstruction* (New Haven, 1948), 28–32.

[28] *Report of the Commissioner of Agriculture for the Year 1867* (Washington, 1867), 420; Robert K. Scott to O. O. Howard, February 28, 1868, BRFAL, Vol. 12.

[29] *Charleston Courier*, November 4, 17, 1866; *Charleston Daily News*, February 27 and May 21, 1866; Andrews, *South since the War*, 119–131, 206.

[30] For typical instances of planters' reactions, see Reid, *After the War*, 346–347; John H. Kennaway, *On Sherman's Track: or, the South after the War* (London, 1867), 109–110; De Forest, *A Union Officer in the Reconstruction*, 46–47.

"Hydra-headed monster," and with poetic flourish exclaimed:

> What can ennoble sots, or slaves, or cowards,
> Alas! not all the blood of *all the Howards*.

He then concluded: "If to the three classes enumerated here . . . , we add 'knaves,' this couplet would give us, not only a complete description of the . . . Bureau, but also of the objects of all its benevolent labors."[31]

Such extreme charges undoubtedly carried an element of truth. Undeniably the lot of the Negro, measured in terms of material well-being, actually appeared worse at the close of the Bureau's life than in 1865. The Commissioner of Agriculture reported that the average wage of Southern farm laborers in 1868 was appreciably lower than in 1867. Specifically, in North Carolina, the average for male workers dropped from $104 to $89; in South Carolina, from $100 to $93; in Georgia, from $125 to $83; in Alabama, from $117 to $87; and in Mississippi, from $149 to $90.[32] Certain it is, too, that the contract labor system left much to be desired in the way of improving the social status of the freedman, and that it failed to promote a healthy confidence between planter and laborer. But is it equally certain that the Bureau was primarily to blame for these failures? Successive crop failures in 1866 and 1867 all but overwhelmed the South, so that if the lot of the black was worse than before, so was that of the white. At the same time, the Radical Reconstruction program, disestablishing the Johnson state governments, enfranchising the freedmen, and facilitating the spread of Loyal Leagues, did irreparable harm in unsettling labor conditions and in fomenting a racial discord.

An intensive study of the Bureau's over-all operation in South Carolina has been made.[33] And, if the evidence from that state on land and labor can be taken as reasonably typical, the Bureau's administration of the contract labor system was one generally characterized by fairness, a kind of rude honesty, and non-involvement in partisan politics. Moreover, throughout the South, by the creation of special tribunals and by the supervision of state courts, the institution performed a real service for the freed worker through the protection of his legal rights. Finally, the Bureau played a vital role in staving off disaster for the entire agricultural population in 1868. Among both races, as a result of heavy crop failures, severe destitution was averted only by the agency's lending thousands of dollars worth of crop-lien rations to white and black.[34]

In sum, the free labor system after four years was still riddled with imperfections. The Bureau had gathered together only some of the elements of a solution to a complex problem. Its half successes were more numerous than its whole ones. Yet for all of that, it had set in motion an arrangement, whatever its shortcomings, that demonstrated the capacity and willingness of the Negroes to work without the compulsion of slavery. Had it done no more, it would have justified its existence.

[31] Wade Hampton to Andrew Johnson, undated, 1866, manuscript, Wade Hampton Collection, University of South Carolina.

[32] Commissioner of Agriculture, *Report*, 1867, p. 420.

[33] My doctoral dissertation at Emory University.

[34] Precisely how much aid was made available in crop-lien rations is unknown, but in South Carolina alone the amount was over $300,000. Annual Report of J. R. Edie, October 19, 1868, BRFAL, Vol. 13.

# CORRECTING NATURE'S ERROR: THE COLORADO-BIG THOMPSON PROJECT

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The early nineteen-thirties were bleak years for the prairie farmers of northeastern Colorado. Already caught in a harsh depression, they lost $12,000,000 worth of crops to drouth in one year. To make matters worse, their cultivation had outstripped available water, and the nearest surplus was on the yonder side of the Continental Divide. Thus they faced the long-recognized anomaly of Colorado: More land than water east of the Divide, more water than land west.

Efforts to redress the balance of land and water had begun in the eighteen-eighties. In 1889, the state legislature authorized an exploration for possible routes to divert western water to the South Platte Basin. Engineers decided a three-mile tunnel was needed, a feature which made the project impractical. During the summers between 1898 and 1905, students from Colorado State College surveyed a route from Grand Lake to the Big Thompson River, involving a twelve-mile tunnel. The new Reclamation Service took cognizance of the project in 1904, deciding more and careful study was needed.[1]

Private interests, in the meantime, tried to best geography. Between 1890 and 1910, three trans-mountain diversion systems linked the Laramie River with the South Platte Basin, and by 1910 four ditches crossed the Divide between the Colorado and South Platte rivers. But the diversions provided only a small amount of additional water. Nevertheless, public leaders recognized that the day might come when it would be possible to divert water from the Colorado to the South Platte on a sizeable scale, and future rights to such diversion were protected by the Colorado River Compact of 1922.[2] Yet the only promise of real relief lay in a large-scale project, and that was merely a dream until 1933.

Then, under the impetus of drouth and depression, farmers and stockmen persuaded the Bureau of Reclamation to drill a 13-mile tunnel beneath the Continental Divide, and transfer water from Colorado to the South Platte Basin for supplemental irrigation. The result was the Colorado-Big Thompson Project, which was one of the first large multi-purpose projects undertaken by the federal government. Conceived and initiated when the Central Valley and Missouri Basin projects were mere plans, it was a major departure from precedent in that it sought to provide additional water for land already cultivated. For the Bureau theretofore had confined itself to making waste land fruitful. The project also illustrates the building of a vast government-owned power grid in the West during the Roosevelt-Truman era.

Stretching for 275 miles from the western slope of the Rockies to the Nebraska line, the project originally was to cost $44,000,000, emphasize irrigation, and provide only for minimal power production. By 1953, when it was ninety-eight per cent completed, the cost had risen to $164,000,000, and full power production was more important financially than irrigation. The project had come to include 10 reservoirs, 15 dams, 24 tunnels with a combined length of 35 miles, 11 canals, 3 closed conduits, 21 siphons, 3 pump plants, 6 power plants, 8 penstocks, 821 circuit miles of transmission lines, 43 power substations, and 23,000,000 cubic yards of embankment. It consumed 37,800,000 man-hours of labor.

The irrigation area covers nine prairie counties of northeastern Colorado—Boulder, Grand, Larimer, Logan, Morgan, Sedgwick, Summit, Washington, and Weld. It is a fertile country, producing sugar beets, potatoes, beans, corn, small grains, fruits, alfalfa, vegetables, dairy products, poultry, eggs, hogs, cattle, and lambs.

The farms have been irrigated by private systems since the eighteen-sixties. Between

[1] "Piercing the Backbone of a Continent," *Industrial News* (March 1945), 1–2.

[2] Donald Barnard Cole, "Transmountain Water Diversion in Colorado," *The Colorado Magazine*, 25:55–56 (March 1948); *Water Resources, Colorado's Greatest Wealth* (pamphlet of article reprinted from *Greeley Daily Tribune*, Greeley [1934]), 4, hereinafter cited as *Water Resources*.

1890 and 1910, individuals and irrigation districts built reservoirs and canals. By the nineteen-thirties, the irrigation systems were valued at $34,000,000, and included 124 canals and 60 major reservoirs, serving 6400 farms. The irrigation system was adequate, but there was not enough water. Diversified crops require about 2.5 acre-feet of water per acre annually, but received barely more than one acre-foot in the years 1925–33. The result was an estimated crop loss of $42,355,000.[3] Either more water had to be obtained or farms would have to be abandoned.

Lying in the South Platte Basin, the area drew its principal supply from the mountain flow of the Cache la Poudre, Big Thompson, Little Thompson, and St. Vrain rivers, and Boulder Creek. The annual flow of these streams had fluctuated between 420,000 and 1,500,000 acre-feet between 1905 and 1934. Landowners had attempted to get more water from wells, but that had lowered the water table without adding materially to the total available irrigation. Because of the small amount of flood and other excess waters, engineers held that large storage reservoirs would serve no useful purpose. A government report said irrigators had reached their limit by 1933 in obtaining supplemental water through private or cooperative means.[4]

In their hour of crisis, the farmers found opportunity. The federal government happened to be looking for feasible projects on which it could spend money. When the Public Works Administration asked for suggested projects, a group of Greeley men met with Weld County commissioners on August 14, 1933. Under the leadership of Charles Hansen, publisher of the Greeley *Daily Tribune*, they revived the idea of trans-mountain diversion.[5] The committee determined to find out once and for all whether the project was feasible. Obtaining funds from Weld and Larimer counties, chambers of commerce, and individuals, the Greeley group engaged two engineers—R. J. Tipton, of Denver, and L. L. Stimson, of Greeley—to evaluate the engineering and economic feasibility of diversion. By spring of 1934, the Tipton report was finished. The engineers reported that it would be practical to divert approximately 300,000 acre-feet by tunnel through the Divide and distribute it through existing irrigation systems. They believed that income from irrigation and power would justify the cost of a government project.[6]

Representatives of irrigation organizations were invited to a meeting in Greeley in April 1934. They heard the Tipton report, and then proceeded to organize the Northern Colorado Water Users Association. The Association had the support of Senators Edward P. Costigan and Alva B. Adams, Congressman Fred Cummings, Assistant Secretary of the Interior Oscar Chapman, a Colorado man, the Union Pacific and Burlington railroads, Great Western Sugar Co., chambers of commerce, State Engineer H. C. Hinderlider, and President Charles A. Lory of Colorado Agricultural and Mechanical College. They also had the support of newspapers, county agents, and civic organizations to an extent that made the promotion of the project a "whole Platte Valley public service."[7]

Moses E. Smith, a state legislator from Ault, went to Washington to arouse government interest in the project. He was received sympathetically by Secretary of the Interior Harold L. Ickes, Commissioner Elwood Mead of the Bureau of Reclamation, and Relief Administrator Harry Hopkins. In January 1935, Ickes authorized a complete survey by the Bureau of Reclamation and provided $150,000 of PWA funds for that purpose. Once assigned to the Bureau, the project came within the purview of Chief Engineer Raymond Fowler Walter who had worked in the northern Colorado irrigation area as a young engineer.[8]

[3] 75 Cong., 1 sess., *Senate Document* 80 (Washington, 1937), 5–8; Northern Colorado Water Conservancy District, *Progress Report*, 1946 (Greeley, 1946), 1; J. M. Dille, *Conservancy District Organization and Operation* (mimeographed article distributed by Northern Colorado Water Conservancy District) (Greeley, n.d.), 1–2, hereinafter cited as *Conservancy District;* 75 Cong., 1 sess., *Hearings before the Committee on Irrigation and Reclamation, House of Representatives . . . on S. 2681*, p. 11, hereinafter cited as *Hearings*, 1937, House Irrigation and Reclamation Committee; Northern Colorado Water Conservancy District, *Colorado-Big Thompson Project and Northern Colorado Water Conservancy District, Dec. 1, 1941* (Greeley, n.d.), 1, hereinafter cited as NCWCD, Project Report 1941. All future references to the District will be abbreviated to NCWCD.

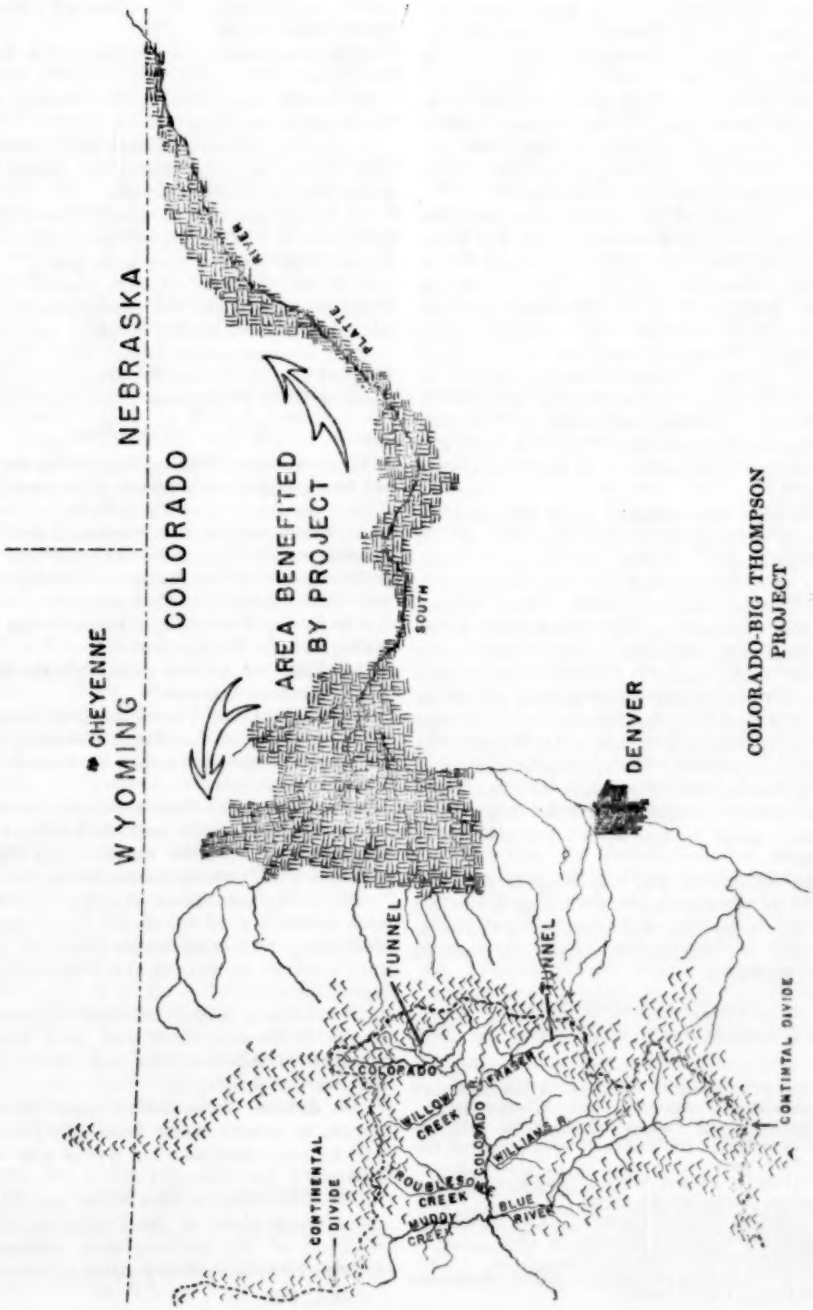
[4] *Senate Document* 80, pp. 6–9; Dille, *Conservancy District*, 2.

[5] J. R. Barkley, assistant manager, NCWCD, to author, November 19, 1953.

[6] *Water Resources*, 4; NCWCD, Project Report, 1941, p. 2; Dille, *Conservancy District*, 2–3.

[7] Fred N. Norcross, "Genesis of the Colorado-Big Thompson Project," *The Colorado Magazine*, 30:36 (January 1953); *Water Resources*, 4–5.

[8] Dille, *Conservancy District*, 2–3; NCWCD, Project Report, 1941, p. 2; *Water Resources*, 5;


NEBRASKA
WYOMING
COLORADO
CHEYENNE
AREA BENEFITED BY PROJECT
PLATTE RIVER
SOUTH
DENVER
COLORADO-BIG THOMPSON PROJECT
TUNNEL
TUNNEL
COLORADO
WILLOW CREEK
FRASER
COLORADO
WILLIAMS R.
BLUE RIVER
CONTINTAL DIVIDE
CONTINENTAL DIVIDE
DOUBLE SPRING CREEK
MUDDY CREEK

While the Bureau's study was in progress during the next two years, the Northern Colorado Water Users Association improved its organization. With more than 60 irrigation districts holding stock, it was incorporated as a mutual stock company in January 1935, opened offices in Greeley in 1936, and retained J. M. Dille—a Fort Morgan irrigation superintendent—as general manager.[9]

The directors of the Association provided the leadership for promotion. Besides Hansen, Smith, Lory, and Dille, they were W. E. Letford, president of the First National Bank, Longmont; R. C. Benson, Loveland farmer; C. M. Rolfson, Julesburg attorney; William A. Carlson, chairman of the Weld County Board of Commissioners; Burgis G. Coy, city engineer of Fort Collins; and Robert J. Wright, Sterling, superintendent of the North Sterling Irrigation District. Coy and Wright had been members of the 1898 survey party.[10]

The plan was opposed from the start by farmers west of the Divide who formed the Western Slope Protective Association in 1934. They were championed by Congressman Edward Taylor, chairman of the House Appropriations Committee, who charged the Eastern Slope interests with trying to take water needed in the west.[11] For three years they blocked the project. After several efforts to resolve differences, representatives of the two groups reached an accord at a Washington conference in 1936. The agreement stipulated that a storage reservoir on the Western Slope would protect irrigators there by impounding as much water as was diverted to the Platte Basin.[12]

The agreement was embodied in the final report of the Bureau.[13] Outlining a project that was to be built and operated in conformity with the agreement, engineers planned these features:

On the Colorado River

1. Green Mountain Reservoir on Blue River, near Kremmling, to impound water for the Western Slope.

2. Hydroelectric plant below Green Mountain Dam.

3. Granby Reservoir to collect water on the Colorado River for diversion.

4. Shadow Mountain Lake, to be connected with Grand Lake, to supply the tunnel with water from Granby Reservoir.

5. Pump plant at Granby Reservoir to pump water 179 feet uphill and a distance of 4.5 miles to Shadow Mountain Lake.

6. Outlet channel at east end of Grand Lake to connect with the tunnel and regulate the lakes to a fluctuation range of one foot.

7. A trans-mountain tunnel under the Continental Divide, 13.1 miles long, from Grand Lake to Wind River, near Estes Park Village.

On the Eastern Slope

8. A conduit 5.3 miles long from the tunnel to a penstock of a power plant on the Big Thompson River near Estes Park.

9. Waste rock would be terraced and landscaped, and all structures blended into their natural surroundings, to protect Rocky Mountain (Estes) National Park scenery.

10. Power Plant No. 1 below Estes Park Village on the Big Thompson.

11. Four additional power plants in the Big Thompson Canyon.

12. A diversion dam on the Big Thompson 12 miles west of Loveland, diverting water through a nine-mile canal to Carter Lake Storage Reservoir.

13. Carter Lake Reservoir, near Berthoud, to store water brought over during the winter. Canals would take the water to Big Thompson and St. Vrain rivers for irrigation.

14. A siphon across the Big Thompson nine miles west of Loveland, and a canal 10 miles long to convey water from the fourth power plant to Horsetooth Reservoir, near Fort Collins.

15. A canal from Horsetooth Reservoir to Cache la Poudre River and to a pumping plant which would lift the water to the North Poudre Canal.

16. Arkins Reservoir, near Buckhorn Creek, to receive water from Big Thompson and balance demands for power and irrigation.

17. Transmission lines connecting the Valmont steam plant of the Public Service Co. with all of the contemplated hydroelectric plants and with various project operations.[14]

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Bureau of Reclamation, *Facts about Reclamation's Golden Jubilee, 1902–1952* (Denver, n.d.), 16.

[9] *Greeley Daily Tribune*, October 15, 1936, reprint supplied by NCWCD; NCWCD, Project Report, 1941, p. 3.

[10] NCWCD, Project Report, 1941, p. 3; Barkley to author, November 19, 1953.

[11] NCWCD, Project Report, 1941, p. 2; *Greeley Daily Tribune*, reprint, October 15, 1936.

[12] *Senate Document* 80, pp. 2–5.

[13] A synopsis was published as *Senate Document* 80, 75 Cong., 1 sess. (1937).

[14] *Ibid.*, 1–2.

The chosen route was designed to deliver water from the reservoirs to farm lands in 60 to 75 days, meeting the demand for supplemental water that usually occurred between late July and late September. Project water would amount to about 40 per cent of the average original supply.[15]

The full report was prepared by Mills E. Bunger under the supervision of Porter J. Preston. Detail estimates were worked out in the Bureau's Denver office by H. R. McBirney for canals, K. B. Keener for reservoirs, L. N. McClellan for power, E. B. Debler for hydraulics, and R. L. Parshall, senior irrigation engineer, Department of Agriculture, for economic studies.[16]

After the engineering report was completed, legislative action proceeded in Washington and Denver. In Washington, the Colorado delegation worked as a unit to advance the project rapidly in the summer of 1937. In Denver, the Association sought a new law to hasten the project.

Before Congress were two separate pieces of legislation. One was a Senate amendment to the Interior appropriation bill for 1938, and the other was S. 2681, introduced by Senator Adams, authorizing the project as outlined in Senate Document 80. The Washington delegation was moving too rapidly for Secretary Ickes, who evidenced some displeasure that the Senate had proceeded with an appropriation before departmental action had been completed. He wrote Senator Carl Hayden of Arizona, whose appropriations subcommittee had already conducted hearings, that he had just received the Bureau's report, along with a protest from the National Park Service. Illness had prevented his conducting a hearing to harmonize the conflicting views.[17]

In spite of the Secretary's position, Congress went ahead. Adams' bill passed the Senate, and went to the House. In the House, it was referred to the Committee on Irrigation and Reclamation, which conducted hearings on June 30 and July 2, 1937. At the hearing, both the Bureau of Reclamation and the Colorado delegation battled for the project, against opposition from friends of the national parks.

Commissioner John C. Page of the Bureau of Reclamation testified the project was economically and technically feasible. It would deliver water at $2 per acre-foot, which was less than the going price, and would increase crop production. He also declared that it did not violate the Colorado River Compact, because upper basin states were unable to use their full allotment within the basin. Congressman Lawrence Lewis assured the Committee that the entire delegation favored the project, Taylor having withdrawn his opposition of a year earlier. Even the Western Slope farmers endorsed the project through their attorney, Dan Hughes, of Montrose.[18]

Highly articulate groups opposed the bill. A. E. Demaray, associate director of the National Park Service, feared construction would scar Rocky Mountain National Park. He also believed a different route, which he did not specify, would be better. Similar opposition was voiced by spokesmen for the Wilderness Society, American Planning and Civic Association, Izaak Walton League, American Forestry Association, National Park Association, and the American Nature Association.[19]

The upshot was that the Interior Department appropriation bill for 1938 authorized the Colorado-Big Thompson Project and appropriated $900,000 for it. After conference amendments, final Congressional action was completed on August 9, 1937. President Roosevelt approved a finding of feasibility on December 21, and in May 1938, a PWA allocation provided an additional $1,400,000.[20] The federal government was then ready to go to work.

Meantime, the Association had been creating a legal entity which could contract with the United States, pay for, and operate the irrigation features of the project. Believing that part of the cost should be borne by the general public, which would share in benefits from a large project, they decided a water conservancy district would be the best type of organization. But Colorado law did not provide for such a district.

To draft an enabling act, the directors engaged two Greeley attorneys, Thomas A. Nixon and William R. Kelly. Experienced irri-

[15] *Ibid.*, 22; House Irrigation and Reclamation Committee, *Hearings*, 1937, p. 73; Dille, *Conservancy District*, 7.

[16] *Senate Document* 80, p. v.; NCWCD, Project Report, 1941, p. 3.

[17] House Irrigation and Reclamation Committee, *Hearings*, 1937, pp. 3, 9.

[18] *Ibid.*, 7–9, 33, 37, 73ff.

[19] *Ibid.*, 37–70 *passim*.

[20] *Congressional Record*, 75 Cong., 1 sess. (1937), 7408–7418; Bureau of Reclamation, *Project Data, Colorado-Big Thompson Project* (Washington, 1949), 76, hereinafter cited as *Project Data;* NCWCD, Project Report, 1941, p. 8.

gation lawyers, they drew upon Colorado statutes — namely, the Conservancy Act of 1922, the Moffatt Tunnel Improvement Act of 1922, the Internal Improvement District Act of 1923, the Colorado Irrigation District Act of 1905—and Utah's Metropolitan Water Districts Act, which in turn had been modeled upon a California law. Some sections of those laws were used verbatim. To them they added sections applicable to the case in hand.[21]

The bill was presented to the 1937 session of the General Assembly where it was handled by Smith, who by then was Speaker of the House. As House Bill 714, it was passed without objection in May, and was signed by Governor Teller Ammons on May 13, 1937.[22]

Styled the Colorado Water Conservancy District Act of 1937, the law permitted creation of conservancy districts which could acquire and hold property, levy taxes and assessments, allot water, and contract with the United States government. As a corporation governed by a board of directors, a district was to be formed on decree of a district judge, upon the presentation of a petition. The petition was to be signed by 25 per cent of the owners of non-irrigated land, each of whom must own property and improvements assessed at least at $1,000. The judge was to appoint the directors.[23]

During the summer of 1937, while Congress was enacting the basic legislation, the Association transformed itself into a water conservancy district. The boundaries were drawn along section lines to include 1,481,000 acres and 36 cities and towns. A petition, signed by 1,607 owners of irrigated and 1,388 owners of other property, was presented to Judge C. C. Coffin of the district court for Weld County. He issued a decree establishing the Northern Colorado Water Conservancy District on September 20, 1937. Eight days later, he appointed the first 11 directors, who met for the first time the very next day. They were Hansen, who was elected president, W. E. Letford, Ray Lanyon, R. C. Benson, Ed F. Munroe, Ralph W. McMurry, Smith, William A. Carlson, J. M. Dille, Robert J. Wright, and Charles M. Rolfson. All had been directors of the Association.[24] To make sure of its legal standing, the District instituted a *quo warranto* proceeding in the Colorado Supreme Court, testing the constitutionality of the law and the legality of the office of the directors. The court upheld the law in a decision of May 2, 1938.[25]

In the meantime, contract negotiations had been opened with the federal government. Since all previous experience had involved reclamation of waste land, a contract for supplemental water presented unprecedented and complex problems. The final solution was for the United States to build the Colorado-Big Thompson as a combination power and irrigation project at an estimated cost of $44,000,000. The District was to be liable for one half of the cost, representing the irrigation features, but would not be held for more than $25,000,000. Payment was to be made in 40 annual installments—the first payment to be made when the project was completed. Certain irrigation features were to be turned over to the District for operation and maintenance, but the United States reserved perpetual title to the power plants which it was to operate and maintain. The District was to obtain revenue for maintaining, operating, and paying for the project from the sale of water at $1.50 per acre-foot and an ad valorem tax that would average out to another 50 cents per acre-foot.

On May 23, 1938, the directors approved the contract. It was ratified in an election on June 28 by a vote of 7,510 to 439. On July 5, the contract was executed by Assistant Secretary of the Interior Oscar Chapman and Hansen.[26]

The Bureau of Reclamation could then proceed with the Big T.—one of the first large multi-purpose projects that reflected a major advance in reclamation. Since the start of reclamation in 1902, the government had built 138 storage and diversion dams, and 20,000 miles of large canals. It had spent $237,000,000 on projects that were in operation in 1938. Only three projects had been under-

[21] Colorado Water Conservation Board, *Colorado Water Conservancy District Law of 1937* (Denver, 1946), 40, hereinafter cited as *Conservancy District Law;* NCWCD, *Northern Colorado Water Conservancy District and Colorado-Big Thompson Project Progress Report, January 1950* (Greeley, n.d.), 3.

[22] NCWCD, *Progress Report,* 1950, p. 3; Barkley to author, November 19, 1953.

[23] Colorado Water Conservation Board, *Conservancy District Law,* 1 ff.

[24] NCWCD, Project Report, 1941, pp. 1, 5, and *Progress Report,* 1950, pp. 3–4.

[25] Colorado Water Conservation Board, *Conservancy District Law,* 33ff; Dille, *Conservancy District,* 5.

[26] Bureau of Reclamation, *Repayment Contract between the United States of America and Northern Colorado Water Conservancy District* (bound mimeographed document, n.p., n.d.), 1 ff.

taken previously in Colorado—the Uncompahgre in 1905, Grand Valley in 1912, and Pine River in 1937. By 1938, the Bureau was engaged in the greatest construction program it had ever undertaken, one that would add 2,500,000 acres of irrigation land in the West.[27]

The new reclamation program envisaged large-scale public power development. The Colorado-Big Thompson contract specified the anticipated power plants, and the Bureau spoke of "two projects"—one for irrigation and the other for electricity. Commissioner John C. Page saw a "very good" market for power because of an increased demand from the mining industry.[28]

Construction on the Big Thompson project was begun in the fall of 1938. It proceeded in three phases—the prewar period ending in 1942, the war period ending in 1946, and the postwar period. It encountered many vicissitudes through change of scope, wartime shortages, and postwar inflation. An abiding difficulty was the climate which allowed only about eight months of construction weather a year at the higher altitudes.[29]

Three parts of the project were undertaken in the prewar period. Work was begun first on Green Mountain Dam and power plant, in accordance with the pledge given the Western Slope farmers. Construction commenced November 30, 1938 on an earth and rockfill dam, which was half finished by 1941. Contractors started drilling the trans-mountain tunnel—which later was named for Senator Adams—on June 23, 1940. Working from eastern and western portals simultaneously, they drilled a tunnel that passed about 4,000 feet below the crest of the Divide. At that point it is approximately 12,000 feet above sea level. Workmen averaged 40 feet a day in a rarefied atmosphere that affected the efficiency of both men and machines. Eight miles had been drilled by 1942. At the same time, 115-kilovolt transmission lines were strung from Greeley to Fort Morgan, Wiggins, and Brush. Substations were built at those points and Poudre Valley.[30]

The project was affected by a fundamental change that was made in reclamation policy in 1941. Since its inception, reclamation had been self-supporting from a revolving fund that drew proceeds from public land sales, oil royalties, and repayments by irrigation districts. Because the income was much too small to finance multimillion dollar projects, the Interior Department Appropriation Bill of 1942 transferred the Big T. and other large projects to the General Fund of the Treasury. The reassignment made possible large annual appropriations, and removed the earlier limitation. However, the self-liquidating principle of reclamation projects was retained.[31]

By June 1941, the Bureau had spent $7,519,000 in building 13.69 per cent of the Colorado-Big Thompson Project. The estimated cost had risen from $44,000,000 to $54,918,000.[32]

With the start of the war, the reclamation program was linked with the "war effort"—a handy symbol for the government propagandist—which enabled the Bureau to multiply and magnify its position in the electric power industry of the West. The Bureau concentrated on war projects, with the expectation that 1942 expenditures would exceed the record of $89,116,114 that had been set in 1940. In 1942, the Bureau allotted more than 90 per cent of its program to hasten power production in inter-mountain and other western areas where strategic industries faced critical shortages. The program was intended to triple the Bureau's capacity of 1,252,000 kilowatts by 1944–45.[33]

[27] *Senate Document* 36, 76 Cong., 1 sess. (1939), 50; House Irrigation and Reclamation Committee, *Hearings*, 1937, p. 18.

[28] *Ibid.*, 14; Bureau of Reclamation, *General Information Concerning the Colorado-Big Thompson Project* (Washington, 1941), 1.

[29] *House Appropriations Hearings*, 80 Cong., 2 sess. (1949), 1367; *ibid.*, 81 Cong., 1 sess. (1950), part 2, p. 307. Because all appropriation hearings cited herein pertain to the Department of Interior and Bureau of Reclamation and were conducted by subcommittees, references to hearings will follow the short form used in this citation, to avoid repetition of non-essential title phrasing. The year refers to fiscal year for which funds were asked. The congressional designation will be omitted after the first use of each hearing.

[30] Bureau of Reclamation, *Project Data*, 76; *Annual Report of the Secretary of Interior*, 1941, p. 19, hereinafter the annual reports will be cited as Interior Department, *Secretary's Report*; Bureau of Reclamation, *Fifty Years of Reclamation: Financial Report to the Nation's Stockholders, 1902–1952* (Washington, 1952), 12; House Irrigation and Reclamation Committee, *Hearings*, 1937, p. 11; NCWCD, Project Report, 1941, p. 9; Bureau of Reclamation, *Colorado-Big Thompson Project* (folder with unnumbered pages, Washington, n.d.), hereinafter cited as *Colorado-Big Thompson Project* (folder); Interior Department, *Secretary's Report*, 1942, p. 16; *ibid.*, 1941, p. 24.

[31] *Ibid.*, 1941, pp. 30–33.

[32] *House Appropriations Hearings*, 77 Cong., 2 sess. (1943), 329.

[33] *Ibid.*, 294–295, 299–300.

The Colorado-Big Thompson Project shared in the public power popularity. For 1943, the Bureau asked $4,830,000 for the project, most of it for power but some for the tunnel and units serving both power and irrigation. Arguing that the development in minerals and other resources would require more electricity in Colorado and Wyoming, the Bureau said the appropriation would place the Green Mountain plant in operation by 1943—which it did, production commencing on May 18, 1943. The project's power system was to be interconnected with the North Platte, Kendrick, Riverton, and Shoshone projects in neighboring states.[34]

However, irrigation features were threatened by the emphasis on power. Because the government was eliminating projects that were not essential to war, the Budget Bureau allowed Green Mountain but dropped the Granby Dam because it was intended for irrigation. The adjustment meant the Western Slope unit would be finished while an essential feature of the diversion plan must wait indefinitely.

Consequently, Colorado interests appealed to a Senate committee in 1942 for restitution of the Granby Dam funds. They said it would contribute to power production on the Eastern Slope by 1944, and therefore was essential to war. The witnesses were Clifford H. Stone, director of the Colorado Water Conservancy Board, and Hansen. Hansen also appealed to agricultural necessity, saying the government had asked farmers of the area to plant an additional 96,000 acres to sugar beets. In the end, Congress appropriated $6,249,070 to expedite the project for war food production.[35]

But the War Production Board nullified the appropriation. Trying to save material for combat needs, the WPB halted all reclamation projects on October 16, 1942, except for the Green Mountain and four other power plants on other projects. The stop order halted the Big T. when it was 23.7 per cent completed.[36]

With the WPB stop order, the Interior Department lost 66 per cent of its 1942 appropriation. Immediately, Ickes and his staff began to emphasize food production to justify projects which formerly had been justified by their power potential. Ickes told a House Appropriations Subcommittee on March 17, 1943, that 24 projects had been halted. "Ultimately," he said, "I think this country will decide it cannot run the risk of food shortages by halting these irrigation developments."[37]

Following the new tack, Commissioner Harry W. Bashore presented a modified wartime plan for the Colorado-Big Thompson to a Senate Appropriations Subcommittee in June 1943. The modified plan, costing $3,600,000, called for an improvised dam on the North Fork of the Colorado River to impound water for diversion, completion of the tunnel which was 80 per cent excavated, and a siphon of wooden staves to carry the water from the tunnel to the Big Thompson River. Water would flow by gravity into the tunnel, and existing canals would deliver 100,000 acre-feet of water to 300,000 acres of farmland. Water was expected to reach the fields by the spring of 1945, maybe by August 1944. He said the new plan was "entirely a food proposition," one that would provide the supplemental water the "farmer needs to carry him over the hump" in raising more crops.[38]

The Senators were sympathetic to the plan, antagonistic to the WPB. Several committee members were emphatic in their criticism of the work stoppage, and Senator Hayden, chairman, remarked that the committee had asked for "a complete review of the situation" by the new Food Administrator, Chester Davis.[39]

As a matter of fact, Davis had taken action several weeks earlier. On May 10, 1943, he recommended the WPB rescind the stop order, and issue adequate priorities to renew construction of the Colorado-Big Thompson. He had found that it and three other projects offered a means of increasing the production of beans, peas, potatoes, dairy products, and other foods. Prodded by Davis and the Senate committee, the WPB cleared the modified plan on July 24, 1943, and during the next year permitted construction to be resumed on 24 other reclamation projects.[40]

[34] *Ibid.*, 295, 457–458, 464; Bureau of Reclamation, *Project Data*, 76.

[35] *Senate Appropriation Hearings*, 77 Cong., 2 sess. (1943), 43, 47–49, 51, 54–55; *ibid.*, 78 Cong., 1 sess. (1944), 313–314.

[36] *House Appropriations Hearings*, 78 Cong., 1 sess. (1944), part 1, pp. 315, 317.

[37] *Ibid.*, 12.

[38] *Senate Appropriations Hearings*, 1944, pp. 314–316, 691–695.

[39] *Ibid.*, 314–315, 694.

[40] *Ibid.*, 776 ff; *House Appropriations Hearings*, 1945, p. 736; *Senate Appropriations Hearings*, 1945, pp. 327–328.

Construction began again on the Big T. The 13-mile tunnel excavation was completed on June 10, 1944. Although the contractors worked from different sides of the Divide, they came together with a difference of three quarters of an inch in grade and seven sixteenths of an inch in alignment.

With the tunnel drilled through, the Bureau confidently expected to have water ready at least for the 1945 irrigation season. But more trouble lay ahead in Washington. This time it came from the War Manpower Commission, which curtailed operations on the project from January to March 1945.[41]

When the war ended, the Bureau of Reclamation swung into a new record-breaking program, spending $90,000,000 in fiscal 1946 to start a five-year program designed to create 45,000 family farms on 4,000,000 productive acres.[42] The appropriation included $6,550,000 for the Big T., and the Bureau awarded $10,000,000 in construction contracts for the project.

By then the project had been overhauled on the drawing boards. As planning studies continued during construction, Bureau engineers changed the routing on the Eastern Slope, added several short tunnels, designed more power plants, and increased reservoir capacities. However, the planners sometimes were at odds with the people on the ground. This was noted by Dille, secretary-manager for the District, who wrote: "If there is sometimes a gap between the somewhat theoretical approach of the Bureau men and what we think is our more practical slant on a mutual problem, we laboriously and finally work out some agreeable solution."[43]

It was during the postwar period, after 1945, that most of the project was built. The Bureau reckoned the Alva B. Adams Tunnel a completed unit when contractors finished lining it with cement in February 1946. The western portal was 109 feet higher than the eastern, and water could gush through its nine-foot bore at the rate of 550 cubic feet per second. Water was released through it for the first time in June 1947, flowing toward the fields through temporary facilities built by the District.[44]

The short Prospect Mountain and Rams Horn tunnels, on the Eastern Slope, were completed in the 1948 fiscal year, as part of the "highest mark of accomplishment in the history of Reclamation." They were part of the $169,000,000 worth of construction that the Bureau completed in the West that year. The next year, the Bureau again reached an all-time high construction record, and 21 contracts were let for the Big T., amounting to $35,000,000. During the year, the Aspen Creek Siphon, Horsetooth Reservoir, and Olympus Dam were completed.[45]

Moving steadily toward completion, the project was subjected to inflation, war delays, unforeseen geological conditions, and design changes that boosted 1937 prices 300 per cent in 10 years. As inflationary pressures multiplied in successive years from 1945 to 1948, the total cost of the project advanced to 61, to 96, to 128, and to 150 million dollars. Not until 1949 did construction costs level off.[46]

Increased costs provided an excuse to expand power development. No matter how much the irrigation features might cost, the District was liable for no more than $25,000,000. Therefore, the higher the cost of the project, the greater the government's obligation. The Bureau of Reclamation reasoned that more power plants should be built, because they would produce a revenue that would pay for the balance of the project.

The original plan called for one power plant in the Estes Park area to produce a uniform amount of dump power. Later, the Bureau decided it would be good business to fluctuate output to match demand. The result was the Estes Park Aqueduct and Power System, including two power plants. Where the original prospectus anticipated four possible plants in the foothills, the Bureau built five.

[41] *Ibid.*, 1946, p. 1068; Interior Department, *Secretary's Report*, 1944, p. 24; Bureau of Reclamation, *Colorado-Big Thompson Project* (folder).

[42] Interior Department, *Secretary's Report*, 1946, pp. 57, 66–67.

[43] Bureau of Reclamation, *Project Data*, 75; Dille, *Conservancy District*, 7.

[44] Interior Department, *Secretary's Report*, 1946, pp. 106–107; *ibid.*, 1947, pp. 142, 143; Bureau of Reclamation and Social Security Administration, *House Additional Appropriation Hearings*, 80 Cong., 1 sess. (1948), 32–33.

[45] Interior Department, *Secretary's Report*, 1948, p. 55; *ibid.*, 1949, pp. 3, 5, 100.

[46] *House Appropriations Hearings*, 79 Cong., 1 sess. (1946), 1130; *ibid.*, 80 Cong., 1 sess. (1948), 688, 931–932; *ibid.*, 1950, part 2, pp. 300–301; *Senate Appropriations Hearings*, 79 Cong., 2 sess. (1947), 1148; *House Additional Appropriations Hearings*, 1948, pp. 73–77; Interior Department, *Secretary's Report*, 1946, pp. 80–81; *ibid.*, 1949, pp. 3, 7, 63.

Then the Flatiron Reservoir was added, complete with power plant. The electrical system was to be interconnected with the Missouri Basin project, as well as other projects in Colorado and Wyoming. In 1946, the Bureau had hoped to have an installed capacity of 144,900 kilowatts; by 1949 the goal was 175,900.[47]

There was a demand for the electricity, however. The first contract was drawn with Estes Park in 1947, and several other municipal agreements were being negotiated. Another demand was translated into political pressure when the Bureau asked for $500,000 to build a transmission line to Holyoke, where the power would be delivered to a REA district in Nebraska. Assistant Commissioner Kenneth Markwell said 1,400 persons had installed electrical devices on their farms in anticipation of the power. Unless the money was appropriated, they would not receive the power, and their devices would be useless. He held the line to be essential, because none other served the area. The testimony did not indicate why and how Nebraska farmers were willing to obligate themselves for expensive equipment when power was not available and before Congress had been asked to approve the extension. Senator Edwin C. Johnson of Colorado, Senator Hugh Butler of Nebraska, and Rep. Carl T. Curtis of Nebraska urged the Holyoke line be built.[48] The line was built.

The power development has been appraised as a "stair-stepping affair" which, due to cost increases, added plants that will produce twice as much power as originally intended. In contrast, irrigation has been confined within the original limits, although some revisions have been made.[49]

The change in the relative importance of irrigation and power brought the Bureau into conflict with the District. In 1947, Dille testified before a House Appropriations Subcommittee, saying the Bureau planned to use the interest component of commercial power rates to pay for the irrigation features that exceeded the $25,000,000 contract limit. "This does not seem to us to be proper financing or in accord with the present reclamation law as we understand it," he said. As an alternative, he suggested the reclamation law be amended to lower the interest rate on power costs—there had never been interest changes on irrigation construction—and permit a 65-year repayment period for repaying the irrigation cost. "Such a plan," he added, "seems eminently fair to us and one which our District can honestly support as the basis for seeking the necessary appropriations to complete the project."[50] The Bureau rejected the revision.

The Colorado-Big Thompson Project was involved in political clashes between Congress and the executive branch. The clashes had been presaged by the contest between Senator Hayden's committee and the WPB over the wartime work stoppage. After the war, the Bureau pursued its program with a singleness of purpose that amounted to an outright disregard for Congress at one time. That came about in 1948 when Congress allotted the Bureau $179,422,239. Within a few weeks, Commissioner Michael Straus—who had once been publicity chief for the Interior Department—announced a $195,000,000 program for the year. Acknowledging it was greater than the appropriation, he said: "But we have decided to go full steam ahead under our limited appropriation basis." In October, he assured Senator Wherry there was no deficit and that there would be none, but a month later some projects had been halted for lack of money, and by December the Bureau was asking for a "supplemental" appropriation.[51]

Straus asked an additional $29,375,000 for four large projects, including $4,150,000 for the Colorado-Big Thompson. He argued the Bureau was short of funds, or had exhausted certain types of funds that should be available for contracts already awarded. He denied the projects had been "speeded up arbitrarily."[52]

During the hearings, Congressman W. F. Norrell of Arkansas found the Bureau had awarded contracts for Granby Dam before money was available for the 1948 fiscal year. This was explained by A. A. Batson, director of Region VII, Denver, who said the contracts were for equipment to supply earlier

[47] *House Additional Appropriations Hearings*, 1948, p. 75; *House Appropriations Hearings*, 1950, part 2, pp. 300–301; *ibid.*, 1946, p. 967.

[48] *Ibid.*, 1946, pp. 1056–1057; Interior Department, *Secretary's Report*, 1947, p. 146; *Senate Appropriations Hearings*, 1946, pp. 786–789.

[49] Barkley to author, November 19, 1953.

[50] *House Appropriations Hearings*, 1948, pp. 1419–1420.

[51] *Senate Appropriations Hearings*, 1947, p. 54; *Joint Hearings before the Subcommittees of the Committees on Appropriations, Congress of the United States . . . on the Bureau of Reclamation Appropriations*, 80 Cong., 1 sess. (1947), 203.

[52] *House Additional Appropriations Hearings*, 1948, pp. 10, 11, 12.

major contracts, and progress payments had not been anticipated that early. Assistant Commissioner Markwell said the Bureau must assume Congress wants it to proceed at the most economical rate of progress. But Norrell was persistent and aggressive, noting that the supplemental money would bring the actual appropriation to the amount of the original budget request. "Now," said Norrell, "I do not think that Congress can ever get in the position of being in the attitude of having to appropriate money because of outstanding contracts made by a department of the government. You operate under laws of Congress. We do not operate under contracts of the Department of the Interior."[53]

But the Bureau held the whip hand. As an agency of a Democratic administration, its maneuver forced a Republican Congress to give it what it wanted. With a presidential election in the offing, a cutback in the Western program could have brought political repercussions. Moreover, past expenditures would represent a certain amount of waste if work was interrupted. Consequently, Congress granted the supplemental request of $4,150,000 for the Big T., along with grants for other projects, but it sought to retain some semblance of control by requiring quarterly reports showing the status of funds appropriated for construction.[54]

In spite of attack, criticism, and setback, the Bureau continued with the project. During the fiscal year 1954 the Big T. "was essentially finished to give full service to water and power users."[55] And in the next year the project met its first test. "A highlight of the year (fiscal year 1955) was the dramatic service of the Colorado-Big Thompson project to the extensive irrigated areas in northern Colorado which in 1954 experienced the first serious drought in 20 years. The availability of more than 300,000 acre-feet of water from the virtually completed . . . project prevented total disaster from a withering drought and assured economic and agricultural stability to a farflung area. . . . Project water deliveries which brought a gross repayment to the Government of $770,880, resulted in an increased crop income to the benefited area of not less than $22 million in that one season."[56] Work on the South Platte supply canal was to have been finished during the fiscal year 1956, completing the final link in the water distribution system. Of the basic facilities, only the Big Thompson power plant was yet to be built.[57]

The project is divided into seven sections, listed below with their component units:

*Western Slope Replacement Storage and Improvements:* Green Mountain dam, reservoir, and power plant; Colorado River Improvements for previously existing irrigation systems and protection of fish and wildlife. *Colorado River Collection and Storage System:* Granby dam, dikes, reservoir, pumping plant, and pump canal; Willow Creek Reservoir; Shadow Mountain dam and lake. *Alva B. Adams Tunnel:* A pipe-enclosed electrical conduit is suspended from tunnel roof to connect eastern and western transmission circuits.

*Estes Park Aqueduct and Power System:* Aspen Creek siphon, Rams Horn tunnel, Prospect Mountain conduit and tunnel, Mary's Lake power plant and reservoir, and Estes power plants. *Estes Park-Foothills Power System:* Olympus Dam, Lake Estes, Pole Hill power plant, Rattlesnake dam and reservoir, Rattlesnake tunnel, Bald Mountain tunnel, Flatiron power plant, Flatiron reservoir, Big Thompson power plant.

*Foothills Storage and Supply System:* Flatiron pumping plant, Carter Lake pressure tunnel, Carter Lake dams (3) and reservoir, St. Vrain supply canal, Big Thompson siphon, Horsetooth reservoir, Horsetooth dam and Satanka dike, Soldier Canyon dam, Dixon Canyon dam, Spring Canyon dam, Dixon feeder canal, Poudre supply canal, bifurcation works at Lewstone Creek, Windsor supply canal, North Poudre supply canal. *Power Transmission System:* A series of transmission lines connect, or will connect, power plants with facilities of "preference customers"—publicly-owned power and distribution systems of municipalities, communities, and REA cooperatives, and with projects in Colorado, Wyoming, and Nebraska.[58]

Once the water reaches the Eastern Slope distribution system, it becomes the problem of the Northern Colorado Water Conservancy District. The District must channel the water to more than 100 separate systems. To control distribution to individual users, the Dis-

[53] *Ibid.*, 86–87.
[54] *House Appropriations Hearings*, 1949, p. 1365; Interior Department, *Secretary's Report*, 1948, p. 57; *ibid.*, 1949, p. 72.
[55] *Ibid.*, 1954, p. 10.
[56] *Ibid.*, 1955, p. 7.
[57] *Ibid.*, 1955, p. 12.
[58] Bureau of Reclamation, *The Colorado-Big Thompson Project* ([Denver], 1950), 8 ff.

trict compiled a case history of every farm in the area to discover the average water supply of each one prior to supplemental irrigation. The District is negotiating about 2,700 separate water allotment contracts, each giving the individual farm enough additional water to equal a total of 2.5 acre-feet per acre annually, a safeguard against speculation. Each contract specifies the stream into which the water will be delivered. Once the water enters a stream, the District loses control. Therefore, arrangements were made with state officials and management of the various irrigation systems, who are responsible for the water reaching its proper destination.[59]

The significance of the project can be evaluated in dramatic terms. It set a precedent by which the Bureau of Reclamation revolutionized its entire program. Prior to the Big T., the Bureau had concentrated upon making waste land usable, and the Colorado project was the first major undertaking to provide water for land already in use. This change was exploited so rapidly that by 1941 the Interior Department directed reclamation toward preservation of established agricultural communities, instead of providing new settlement opportunities in the West.

The Bureau anticipates the project may transform the life of the region. By overcoming the water shortage, it may remove a limitation on agricultural expansion. By providing additional low-cost electricity, it may encourage the development of agricultural processing, wool, leather, glass, metal, zinc, ferro-alloy, and alkali chlorine industries.

In the Bureau's books, it is a paying proposition—especially through power sales. The first power was sold in the 1948 fiscal year —120,729,542 kilowatt-hours for $782,970. Power revenue increased to $1,361,653 in fiscal 1952, and it was estimated that the sale of power alone would yield approximately $150,000,000 during the 40-year repayment period.[60]

The project also was responsible for the Colorado conservancy district law by which a quasi-municipality can be created, cutting across county and city boundaries, for the special purpose of aiding farmers. Through the law, there was created the Northern Colorado Water Conservancy District, which is charged with operation of the actual irrigation features of the project.

As yet, it is difficult to measure the economic benefits of supplemental water in terms of dollars. Delivery of water began with the first tunnel diversion in 1947, continuing in limited quantity in the Big Thompson Valley until 1950. Between 1950 and 1953, water was also delivered to the Cache la Poudre and Little Thompson valleys. District officials noted that the 1953 irrigation season was one of subnormal local water supply, and the effect of the extra water "was forcefully demonstrated in the results obtained from production of irrigated crops in the areas to which such water was available."[61] Operating on both sides of the Continental Divide, the project includes the compensatory storage feature, which protects Western Slope farmers in their prior appropriation rights to Colorado River water.

However, certain criticisms of the project demand attention. The Bureau seems to have been guided by the philosophy of the end justifying the means in pushing the Colorado-Big Thompson Project. As the foregoing material shows, officials once argued for power plants because of war needs. They next argued war food needs when the WPB denied the power argument. And they then again argued for power plants because of project economies. The power plants, of course, increased the cost even more. Clearly, Bureau officials wanted the project at any cost. But then the project was so far along when hit by inflation that the higher expenditures were necessary to complete the project, avoiding the waste of an incompleted undertaking.

Although the twin objectives of increased agricultural and industrial output may be desirable, they raise the question of whether the arid and semiarid West may not paradoxically water itself into a worse problem by superimposing industrial demands upon expanded agricultural demands to a point beyond the utmost physical capacity of streams and reservoirs. A somewhat similar consideration was voiced in an editorial in *The Nation*, which endorsed the view that the West is being developed on a fragmentary basis without regional fact-finding. The editorial also said the planning and construction functions should not reside in the same

[59] Dille, *Conservancy District*, 2, 6; NCWCD, *Discussion of Project Water Delivery to Allottees* (mimeographed statement, Greeley, 1948), 1.

[60] Interior Department, *Secretary's Report*, 1941, pp. 1–18; *ib'd.*, 1948, p. 111; Bureau of Reclamation, *Fifty Years of Reclamation*, 19; Bureau of Reclamation, *Golden Jubilee*, 3; Bureau of Reclamation, *Colorado-Big Thompson Project* (folder).

[61] Barkley to author, November 19, 1953.

agency. The plans for such an important project as the Colorado-Big Thompson "should be fully blue-printed before construction has started, and the construction agency should not be involved in lobbying them through Congress."[62] The latter criticism is well-taken, but it must be acknowledged that the Colorado-Big Thompson Project broke new ground in the agricultural development of the western United States.

[62] *The Nation*, 168:647 (June 11, 1949).

## GATHERING THE GRASS

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The history of agricultural technology during the first half of the nineteenth century is the story of the increasing application of animal labor to tasks which had always been performed by human muscle. At the beginning of the century, the only operations in which animal power was universally employed, aside from transportation, were those of plowing and harrowing the soil. Animals were also used in the treading of grain in some areas. All tasks, other than these, were carried out by human effort and hand tools.

The history of the shift from human to animal labor, which characterized the half century, begins with the hay rake. The harvesting of grass was one of the great bottlenecks in the applied technology of husbandry; the labor required setting firm limits on the number of animals that could be wintered and the quality of the care that they could be given. The problem also set limits on the direct income of many farms since, in an age of horse transportation, hay was an important cash crop on farms located close to urban centers or on waterways down which the heavy and bulky product could be economically moved to market.

The cost of securing an acre of hay was about one day's labor for cutting and half a day for raking into windrows. In some areas, considerable additional labor was expended in turning the hay during curing. Loading and hauling to storage were additional time and labor consuming tasks. Under very favorable conditions, a day's labor might produce a ton of hay but the average was probably not more than one third of a ton.

As compared with mowing, raking, even with a heavy wooden rake, was a simple repetitious task requiring little skill. Though much less arduous than mowing, it was nevertheless men's work and was not turned over to women or boys. Since the haying season was a busy one with numerous other tasks demanding attention, and since unfavorable weather was always a serious risk, it would seem that any device which could economically reduce labor requirements and expedite at least one operation would meet with a ready acceptance.

Before 1800, a horse-pulled drag rake was in use in Virginia,[1] doubtlessly borrowed from Great Britain where such devices were known though not widely employed.[2] This implement was simply an enlarged version of the familiar wooden hand rake, equipped with shafts and handles. It was inexpensive, being readily made on the farm at a cost of a few dollars.[3] During the first quarter of the century, these implements found a few users, scattered throughout the East.[4] Some claimed substantial economies with the use of the rake, asserting that with it, a horse, and a boy to drive, work could be done equivalent to that of from three to six men with hand rakes.[5] However, since the horse had to be stopped and the rake lifted with the completion of every windrow, the time that could be saved in even moderately heavy grass was not great.

[1] The origin of the horse-pulled rake is obscure. George Washington employed "harvest horse-rakes" for gleaning on meadows and grainfields. J. M. Toner, "General Washington as an Inventor and Promoter of the Useful Arts," *Patent Centennial Celebration, 1891* (Washington, 1892), 375. Similar horse rakes were in use in other sections of Virginia after 1800. *American Farmer*, 3:135 (1821–2); *Ploughboy*, 3: 246 (1821).

[2] George E. Fussell, *The Farmer's Tools, 1500–1900* (London, 1952), 140.

[3] For descriptions of the implement see Philadelphia Agricultural Society, *Memoirs*, 3:212 (1814); *Ploughboy*, 2:310 (1820–1); *Yankee Farmer*, 1:113 (1835); John Nicholson, *The Farmer's Assistant* (Lancaster, 1820), 146.

[4] *American Farmer*, 5:307 (1823); 7:163 (1825).

[5] *Ibid.*, 2:312 (1820); New York Board of Agriculture, *Memoirs*, 2:378 (1823); *Genesee Farmer*, 4:266 (1834).

The drag rake was, therefore, thought of by many as of use principally in gleaning after hand raking in grain fields or meadows. There was little interest in such operations.

Drag rakes equipped with wire instead of wooden teeth appeared on the market about 1830.[6] Since they were light, they reduced the heavy work of lifting the rake over each completed windrow. However, they were also subject to the criticism that they were too light to perform well.[7] Though drag rakes of both types continued to attract attention until about 1850, they never played a significant role.

A much more useful device appeared sometime before 1820. This was the revolving horse rake, an implement of obscure but apparently American origin.[8] It consisted of two rows of wooden teeth set opposed on a beam which was so attached to shaft and handles that it could be tripped to drop and slide over its load of accumulated hay.[9] When so tripped, the second set of teeth dropped into position to commence a new windrow, the operation being continuous. Like the simple drag rake, the revolver could be made by any carpenter or skillful farmer. However, numerous commercial forms became available, the earliest being that placed on the market in 1823 by Samuel Pennock of Kennett Square, Pennsylvania. A number of patented versions of the revolver appeared in the late 1830's.[10]

With the considerable aid of the agricultural press, information about the revolver traveled rapidly. By 1840, the implement was in use by at least a few farmers in every eastern state north of Virginia.[11] The numbers involved were, however, very small. It was asserted in 1838 that "not one farmer in a thousand in Massachusetts has ever seen one."[12]

During the decade of the forties, acceptance increased with some rapidity, and by 1850, the revolver had become a standard implement among those progressive and cost-conscious farmers who raised substantial quantities of hay for their own use or for sale. An English traveler noted in 1849 that "the horse rake is almost universally used for gathering the hay off the fields and forming it into cocks."[13] Others reported the implements as in universal use in the Middle States and in New England.[14] Such observations must be treated with skepticism. In 1849, a Committee on Implements of the Norfolk County (Massachusetts) Agricultural Society reported that not one farmer in ten in the county used the horse rake.[15] "It is astonishing," wrote a Connecticut farmer in 1853, "to see how many farmers still rake by hand, preferring, as it would seem, to pay a dollar or more a day for hand rakers in preference to seven or eight dollars for a horse rake, which will pay for itself twice over in one season, to any farmer who has got twenty-five or thirty tons of hay to get."[16] That the rate of adoption in New England was very slow is suggested by the fact that the five Boston

[6] *Farmer's Monthly Visitor*, 7:122–123 (1845).

[7] *Genesee Farmer*, 11:111 (1850).

[8] The inventive origins of the revolving rake are obscure. One account is as follows: "The first horse rake that was used in this town (in Oneida county, N.Y.) was made by Ephraim Perkins in 1811. Mr. Perkins at that time owned a farm of nearly 400 acres, mostly in grass. The horse rake worked admirably, much in advance of the hand rakes. Yet Mr. Perkins' energetic go-ahead mind was not content with the idea of stopping and backing up every time the rake was to be discharged, and he projected a rake *to turn over* without the horses stopping and Charles Gouge made it the 13th day of July, 1811. Jervis Phelps, a Yankee pedlar who worked for Mr. Perkins carried the model in 1812 to Pennsylvania." *Cultivator*, 3d series, 13:36 (1865). Other sources claim that the revolver was invented by a Negro living in Hempstead Plains, Long Island, about 1814. *Ibid.*, 4:213 (1847). Samuel Pennock is also credited with the invention. In any case, Pennock was manufacturing the revolver for commercial sale by 1823 and continued to do so for many years. *American Farmer*, 5:117–118 (1848); *Boston Cultivator*, July 6, 1850; *Country Gentleman*, 12:397 (1859).

[9] A detailed description of the construction of a revolving horse rake may be found in *Farmer's Cabinet*, 1:337–339 (1837). See also Percy W. Bidwell and John I. Falconer, *History of Agriculture in the Northern United States, 1620–1860* (New York, 1941), 213–214.

[10] Hunt's and Pudney's in 1836: *New York Farmer*, 9:68 (1836); *Cultivator*, 4:184 (1837); *Michigan Farmer*, 4:72 (1846); *Rural New Yorker*, 15:70, 374 (1864); 16:70 (1865). Holbrook's in 1839: *Cultivator*, 6:121 (1839); *Genesee Farmer*, 12:17 (1851).

[11] *Northern Farmer*, 1:166 (1833); *Farmer's Register*, 2:739 (1935); *Genesee Farmer*, 8:359 (1838); *Cultivator*, n.s., 1:123 (1844); Maine Board of Agriculture, *Annual Report*, 1841, p. 113; Thomas G. Fessenden, *The Complete Farmer and Rural Economist* (Boston, 1839), 327.

[12] *New England Farmer*, 17:114 (1838–9); *Genesee Farmer*, 8:359 (1838).

[13] *Cultivator*, 7:344 (1850).

[14] *Boston Cultivator*, July 6, 1850; Massachusetts Board of Agriculture, *Annual Report*, 3:87 (1849).

[15] Massachusetts State Board of Agriculture, *Transactions of the Agricultural Society*, 1849, p. 295.

[16] *New England Farmer*, 5:272 (1853).

agricultural warehouses in 1849 sold only 1,850 horse rakes, as contrasted with 37,000 plows and 138,600 hand rakes.[17] Such evidence is, of course, not conclusive since the implements were sometimes made on the farm.

The revolver found its way westward very quickly and was accepted more readily in some Western areas than in the East. A correspondent of the *Genesee Farmer* wrote from western New York in 1836 that "I got one of the revolving horse rakes made last season according to the plate in your paper. It cost me too much ($9.00) but I was amply paid last year for the whole expense. It is a great improvement."[18] Another wrote a few years later from the same section that a horse-rake had been made for him by an ingenious friend at a cost of $12 "and I would not be without it for one hundred."[19] By 1850, the revolver was widely used in the wheat-grass farming areas of central and western New York, one farmer observing that "a more efficient and labor-saving machine for farmers never was invented."[20] In 1842, the implement was reported in general use in the area about Louisville where baled hay was an important item in the commerce with New Orleans.[21] But they spread only slowly in Ohio. The revolver was introduced into the southeastern part of the state as early as 1835. Fourteen years later the implement was reported as "in common use in some parts of Ohio but not as generally as it would be if all the farmers understood its value as a labor-saving and especially a time-saving invention," and it was noted that there were few good ones in the state.[22] The revolver was apparently unknown in Illinois before 1843 and little used there,[23] or in Indiana before 1850.[24] Horse-rakes, together with mowers, were recommended as the answer to the scarcity of harvest hands in Michigan in the middle fifties.[25]

At the same time that the revolver was approaching the status of a standard implement among the cost-conscious, leading farmers were turning to a substantially improved version—the wheeled riding or sulky rake. Though such devices had appeared earlier,[26] the first to command substantial acceptance was that patented in 1849 by Calvin Delano of Maine.[27] This two-wheeled implement was equipped with wooden teeth which could be raised or lowered as needed by the driver. Within a few years after the introduction of Delano's rake, a variety of sulky rakes equipped with movable wire teeth appeared on the market.[28] Such devices were substantially perfected by 1870.[29] It was estimated that with the sulky rake of the late fifties, from twenty to thirty acres could be gathered in a

[17] Massachusetts Board of Agriculture, *Agricultural Report*, 1849, p. 139.

[18] *Genesee Farmer*, 6:203 (1836).

[19] *American Agriculturist*, 2:245 (1843).

[20] New York State Agricultural Society, *Transactions*, 1841, pp. 134, 142; 1842, pp. 148–149, 159–160, 165, 171. U. S. Commissioner of Patents, *Annual Report*, 1850, Part II, *Agriculture*, 435; 1853, Part II, 218.

[21] *Dollar Farmer* 1:11 (1842). A few drag rakes were in use in northern Kentucky before 1840. The revolver was being sold by a "traveling vendor" in that year. *Franklin Farmer*, 3:330–331, 343, 365 (1840).

[22] *Ohio Cultivator*, 5:215 (1849); Robert Leslie Jones, "The Introduction of Farm Machinery into Ohio Prior to 1865," *The Ohio State Archaeological and Historical Quarterly*, 58:16–17 (1949). The unusually detailed *Annual Reports* of the Ohio State Board of Agriculture contain relatively few references to the implement. They were reported as generally used in Erie county (1849, p. 90), Stark (1855, p. 88), Trumbull where they were "seen on almost every farm," (1855, p. 211) and Harrison (1857, pp. 30–31). But they were only being introduced into Gallia county (1855, p. 151), Mahoning (1854, p. 134) and did not appear into Drake county until 1865 (1866, p. 149). In Monroe county they were known in 1859 but not generally used (1859, pp. 202–203). Cf. *Ohio Cultivator*, 1:93 (1845).

[23] The editor of the *Prairie Farmer* on a trip northwest of Chicago to Belvidere observed that the cradle had virtually superseded the scythe but reported that "I have scarcely seen a horse rake, for use in the hayfield, since leaving Chicago. This strikes me as singular, since few implements save more labor, especially when the comparative small cost of it is taken into account." *Prairie Farmer*, 10:267 (1850); 3:58 (1843).

[24] Indiana State Board of Agriculture, *Annual Report*, 1852, p. 92–95.

[25] *Farmer's Companion*, 1:93 (1852); 3:134 (1854).

[26] The Columbian horse rake. *Genesee Farmer*, 7:4–5 (1837).

[27] *New England Farmer*, 2:27 (1850).

[28] As, for example, Whitcomb's Metallic Springtooth rake, and Squire's Self-Discharging Horse rake. *Valley Farmer*, 9:34 (1857); *Rural New Yorker*, 13:197 (1862). The revolver was also offered in improved forms, with both wooden and steel teeth. *New England Farmer*, 12:281 (1860); *Rural New Yorker*, 11:195 (1860). Combinations also appeared. The outstanding agricultural implement firm of Nourse, Mason and Co. in 1857 offered Carpenter's Improved Horse-Rake which could be used as a sulky and as a walking rake. Charles L. Flint, "A Hundred Years' Progress," U. S. Commissioner of Agriculture, *Report*, 1872, p. 195; *Agriculture of Massachusetts*, 1856, p. 203.

[29] Robert L. Ardrey, *American Agricultural Implements* (Chicago, 1894), 96.

day by a single horse and driver "and that without overexertion."[30]

After 1850, references to the horse-rake in the contemporary literature frequently fail to distinguish between the revolver and the sulky rake. It seems clear, however, that the wheeled rake quickly found some acceptance in widely scattered sections. It was said to be displacing the revolver in Sullivan county, New York, and in parts of Ohio, by 1851; was well established in Massachusetts by 1856; and was being brought into use in New Hampshire before 1860.[31] The sulky rake was popular in Michigan and in Iowa by 1865.[32] The higher cost of the sulky rake and inability to utilize its greater capacity were factors encouraging the continued use of the revolver.

From the available data, it seems clear that between 1850 and 1870 the horse rake in both its forms had achieved the status of a standard implement on Northern farms where hay was an important product. The state census of New York reported in 1855 that almost 19,000 horse-rakes had been manufactured that year, the equivalent of one for every 12 of the state's farms.[33] In 1869, production in the state was reported by the federal census as 15,500 units.[34] The data for New York suggest, even allowing for some out-of-state sales, that the manufacture of horse rakes during these years was supplying a demand originating less from new adoptions and more from the need to replace worn-out implements. For the nation as a whole, production in 1869 was 81,000 units—Ohio, New York, and Michigan being the leading manufacturing centers.

Despite such evidence of an approach to general acceptance, Solon Robinson as late as 1865, found it pertinent to write that "to rake by hand, when it can be so much more speedily done by horse-power, shows a great want of economy and sound judgment."[35] Robinson's comment gives emphasis to the fact that forty years after its introduction, this simple, inexpensive, and timesaving device had not yet achieved universal use. The very slow acceptance of the revolver could hardly have resulted from ignorance of its existence since it was given abundant publicity in the agricultural press and at fairs. Capital requirements cannot have been a highly significant factor since the commercial types were low in cost; in any case the implement could be made on the farm at very slight expense.

Slow acceptance followed in part from the fact that many farmers were "not fixed for it," meaning that their meadows were too rough and cluttered with stumps and stones. More important was the general resistance to new ideas; a mental inertia which was incapable of visualizing an extension of animal labor to tasks other than transportation and plowing and which found rationalization in doubts regarding the utility or the economy of the instrument.

No doubt, the effective use of the revolver required the development of some skill. "The wooden rake," wrote one farmer, "is too provoking for a Christian to use, if he would avoid profane language. They are hard to hold and awkward to turn over; they also tangle up the hay, so that you must lift the whole rake full, with a fork, at once, or spend some time pulling it apart."[36] It was agreed that rough meadows precluded any advantage in the use of the rake and also that, where the grass was very heavy, little was gained.[37] Dirt and dust were alleged to reduce the quality of horse-raked hay.[38] There were complaints that the rake was subject to breakages requiring annoying repairs and delays

[30] Flint, "A Hundred Years' Progress," 289.

[31] U. S. Patent Office, *Annual Report, Agriculture*, 1851, p. 220; *Ohio Cultivator*, 3:25 (1847); 7:364 (1851); *New Hampshire Journal of Agriculture*, June 30, August 25, 1860; *New England Farmer*, 2:27 (1850); 12:374 (1860); Massachusetts Board of Agriculture, *Annual Report*, 1851, p. 527; *Plow*, 1:230 (1852); *American Agriculturist*, 18:172 (1859); 19:222 (1860); *Rural New Yorker*, 2:210 (1851); *Homestead*, 3:624 (1857); Charles L. Flint, *Grasses and Forage Plants* (Boston, 1859), 191–195.

[32] Michigan State Board of Agriculture, *Transactions*, 1864, p. 15 ff; Iowa State Agricultural Society, *Transactions*, note the presence or rapid acceptance of sulky rakes in: Alamaka and Polk counties (1857, p. 197, 400); Blackhawk (1859, p. 182); Davis, Floyd, Humboldt and Taylor (1865, pp. 328, 412, 433, 453, 521); Henry, Bremer, Crawford, and Tama (1866, pp. 337, 301, 328, 416); and Mitchell (1867, p. 467; 1868, p. 445). Cf. *Iowa Farmer*, 4:358 (1856).

[33] *Census of the State of New York for 1855* (Albany, 1857), 430 ff. *The Census of the State of New York for 1865* (Albany, 1867), 473, 480–494, reports the production of 7,347 horse-rakes by 20 out of 42 or more establishments presumably engaged in their manufacture.

[34] U. S. Census Office, 9th Census, 1870, vol. 3, *The Statistics of the Wealth and Industry*, 588.

[35] *Facts for Farmers*, 1865, p. 774.

[36] *Genesee Farmer*, 12:111 (1851).

[37] *Cultivator*, 6:121 (1839); *Indiana Farmer*, 7:120 (1858).

[38] *New England Farmer*, 1:230 (1849).

though the device was certainly not unique in this respect.

Those farmers who were alert to product-increasing possibilities seem to have readily overcome such difficulties. Such farmers described the horse-rake as "unquestionably the best labor-saving farm implement of recent invention,"[39] and, as contrasted with the mower, "not to be named among the doubtful implements."[40]

In 1856, the Secretary of the Massachusetts Board of Agriculture, in commenting upon a survey of the use of the horse rake in his state, wrote: "It met with great opposition and encountered great ridicule on its first introduction, but has survived all and become indispensable in all thrifty and economical farming.[41] It is significant that the available evidence suggests that it was most readily adopted where hay was an important cash crop as around the major Eastern cities, in Maine where lumber camps were important markets for hay, and on the Ohio river, down which hay was shipped to Southern markets.[42]

Acceptance did not spread concentrically from the point of introduction. Rather, a few farmers, scattered virtually throughout the nation, brought it experimentally to their farms. There, others like-minded but less imaginative and aggressive, observed its operations, and slowly imitated by incorporating it into their own operations. Significant in its own right, the horse-rake was important also in that it prepared the way for acceptance of the further extension of horse-powered devices to such tasks as reaping, mowing, and threshing.

[39] *Plough, Loom and Anvil*, 5:37 (1852).

[40] *Miner's Rural American*, 1:243 (1856). Cf. *Homestead*, 3:301 (1857); *New England Farmer*, 20:414 (1842); *Genesee Farmer*, 4:266 (1834).

[41] *Agriculture of Massachusetts*, 1856, p. 200.

[42] *Cultivator*, n.s., 6:314 (1849); *Maine Farmer*, July 12, 1849; March 15, 1849; July 23, 1857; Maine Board of Agriculture, *Annual Report*, 1841, p. 113; 1856, pp. 70–75, 117; *Dollar Farmer*, 1:11 (1842); *Agriculture of Massachusetts*, 1856, p. 249.

# JOURNAL OF F. AND W. RENICK ON AN EXPLORING TOUR TO THE MISSISSIPPI AND MISSOURI RIVERS IN THE YEAR 1819[1]

Edited by PAUL C. HENLEIN[2]

*Cincinnati, Ohio*

*Editor's introduction:* On the morning of May 12, 1819, two of the Renick men rode on horseback west out of Chillicothe, cattle-capital of Ohio. They were going to see what the "Missouri fever" was about—the new land talk that buzzed at the Cross-Keys Tavern, up and down Water Street, and wherever travelers' reports were heard. At that moment—before the depression from the East reached there in the fall—Missouri Territory was in the throes of a land boom; although hundreds of thousands of acres had no takers at the $2.00 minimum, some land was bringing as high as $12 an acre.[3] Missouri bounty land scrip, too, was in demand in Chillicothe itself.[4] The stream of migration to Missouri flowed chiefly from the South and the Ohio Valley—people with whom the Renicks would feel at home. Kentucky cattlemen, too, were affected by curiosity about Missouri; Green Clay sent his sons Brutus and Cassius to explore Missouri in 1820, and a brother of Strauder Goff migrated there.[5] If Missouri looked good, the Renicks might pull up their stakes in the Scioto Valley, just as they had twenty years before on the South Branch of the Potomac, and move. Now, 136 years later, the manuscript field-notes they made on this exploring expedition have been discovered in the Felix Renick farmhouse near Chillicothe.[6]

The notes completely fill one notebook and part of another. The notes in the second notebook, apparently written by Felix near Franklin, Missouri, or else after he got home, comprise a slightly abridged copy of the contents of the first notebook, and also all the field notes about the last part of the trip. The second notebook, furthermore, contains in its back pages some notations of cattle sales made several years later. Felix entitled the second notebook, "Memorandum of Travel of F. and W. Renick and George Davies."[7] That part of it which is a continuation, in effect, of the

[1] Felix and William Renick. From the "Big Levels" northeast of Lewisburg, Virginia (now West Virginia), and from the South Branch of the Potomac, the Renick clan had migrated westward about 1799, one branch settling in the Kentucky Bluegrass, another in the middle Scioto Valley. Wherever they settled, the Renicks became leaders in the beef-cattle business. Felix, 43 years old in 1819, was at that time easily the most famous of the family. The West knew him well; in May, 1810, he had been in the Chickasaw nation, buying half-blooded Iberian cattle; in 1815, he had gone into Kentucky and hired an agent to procure stock cattle for him; later the same year he had assembled a herd of fat cattle in the Scioto Valley and driven them over the mountains to Philadelphia; and in 1816, he himself had gone through Kentucky buying stockers. But this was only the beginning. By the 1830's, he was corresponding with his fellow cattleman and political idol, Henry Clay, about upbreeding by making direct importations of stock from England; and in 1834, an importation of Shorthorn stock was made by the Ohio Breeding and Importing Company, of which Felix was president. At the time of his death, he was president of the Columbus and Portsmouth Turnpike Company. Death came in 1848, when a beam at a ferry dock on Paint Creek fell on him and crushed his skull.

William Renick was Felix's younger brother. Almost nothing is known about him except that he migrated to the Scioto Valley about the same time as Felix and George, and was engaged in cattle-fattening there in 1818. He moved on to Missouri in 1819 or shortly thereafter. See *Western Star* (Lebanon, Ohio), January 26, 1819. Some years later he moved back to Ohio, settling in Pickaway County, where he died in 1845. See *Ohio Cultivator* (Columbus), August 15, 1845. He is not to be confused with his famous nephew, William Renick, also of Pickaway.

[2] The original journals are in the possession of Renick Cunningham of Chillicothe, Ohio. I am indebted to Mr. Cunningham for permission to transcribe and publish. This is a literal transcription except for the use of punctuation at various times to break up long passages.

[3] *Niles Weekly Register*, October 17, 1818, p. 125.

[4] *Scioto Gazette and Fredonian Chronicle*, August 6, 1819.

[5] Cassius M. Clay, interview with the author, Paris, Kentucky, June 1, 1956; Ben Douglas Goff Sr., interview with the author, Winchester, Kentucky, November 8, 1955.

[6] Almost nothing is known about the history of the notes. They were not among that portion of the Renick papers with which the late Professor Charles Sumner Plumb worked in 1923.

[7] This notebook is also in the possession of Renick Cunningham.

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SCALE IN MILES
MISSOURI
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HANNIBAL
SAVERTON
LONDON
SALT RIVER
LOUISIANA
CLARKSVILLE
SUGARTREE BOTTOM
TIT SAW PLAINS
MOUTH OF CROOKED RIVER
OLD FRANKLIN
SALT FK.
MISSOURI RIVER
ST. CHARLES
PORT DESIOUX
EDWARDSVILLE
SHOAL CREEK
ST. LOUIS
MISSISSIPPI R.
WABASH RIVER
WASHINGTON
VINCENNES
PAOLI
SALEM
LIVONIA
LEXINGTON
MADISON
RISING SUN
BURLINGTON
LEBANON
CLARKSVILLE
CHILLICOTHE
CINCINNATI
BELLEVUE
OHIO RIVER
INSET
SUGARTREE BOTTOM
MOUTH OF CROOKED RIVER
TIT SAW PLAINS
SALT FK.
OLD FRANKLIN
EXPLORING TOUR OF
FELIX AND WILLIAM RENICK
INTO MISSOURI TERRITORY, 1819
GEOG. DEPT. U OF WIS.

journal is reproduced in sequence in this article.

The journal possesses both geographical and historical significance. It is an early document in the historical geography of the great interior valley, a description of northern and central Missouri made in the same year that Henry Schoolcraft was describing southern Missouri. As an historical document, it not only gives us a rare insight into the thoughts of an American cattleman evaluating land, but it also lets us feel for a moment that restless, westward urge that peopled a continent.

Finally, the discovery of these two notebooks constitutes discovery of a heretofore missing link in the history of the cattle trade of the Mississippi valley. Notations on the back pages of the "memorandum" make clear that both William Renick and George Davies had moved to Missouri by 1822, and that Felix visited them in the summer of that year. Felix returned to Ohio in September or October, and in November he recorded in the "memorandum" a sale of 30 cattle, 4 to Alexander Gold at $40 each, 10 to John Rusk at $6 each, and 8 to J. Elmore at $4.50 each. One can guess that the cheaper of these were stockers that Felix had brought back from Missouri with him. Missouri cattle, presumably stockers, had been observed going east as early as 1816; and the movement was to grow to large proportions by 1832 or 1833, with Felix himself making a drive from Missouri to Ohio in July, 1832.[8] In August of 1826, Felix had made another trip to Missouri —presumably his third—and recorded in his Bank and Account book a sale of cattle to George Davies, who had settled on the 'Tit Saw Plains.[9] These cattle probably were breeders, of which Missouri shorthorn farmers had a continuing need. Thus, the Renick papers indicate that by 1826 a fairly regular two-way cattle trade had developed between Ohio and Missouri, based in part on family ties and old friendships.

Despite at least four trips to Missouri, Felix decided to keep his Scioto farm, apparently never finding "something more to his mind." He prophesied that steam-power might someday develop the great prairie of northern Missouri; yet, although he and George Davies seem to have agreed that the 'Tit Saw Plains could be productively broken to corn with their iron-plated wooden plows, Felix apparently worried about the fact that timber would have to be hauled a greater distance than at the smaller Scioto valley prairies.

The Renick journal is as follows:

Set out from Chillicothe on the 12th May by the way of Cincinnati which place we left on the 16th, cros'd the Ohio by way of Burlington [*sic* Bellevue] a small town in the state of Kentucky thence on to Bellview [*sic* Burlington] and to the Rising Sun a small town on the West Bank of the Ohio in the State of Indiana. We then proceded on the road towards Madison. The road leaves the river some 4 or 5 Miles of grapes[10] down parlell with it over a pretty rich but a very Broken country until you get near Madison when it again turns in to the road to Vincennes. The first 8 or 9 Miles we pass over after ascending the Bluff is level land part of which is tolerably good somewhat Sandy with a heavy growth of poplar and a mixture of Walnut, Buckeye etc. As we approach New Lexington which is 18 Miles distant from Madison the land is of a better quallity more rolling with a groth of soil very similar to the second rate land of Kentucky,—all the land so far in this state is a strong limestone a number of sinkholes, and some marks of antiquity, such as mounds etc. After passing Lexington we enter a wet beech country with a tolerably good looking soil but too wet for any advantageous cultivation. This flat continues 10 or 12 miles when we ascend and pass over a high knobby poor Chestnut oak Country from which we again descend into a pretty good Limestone Land in which Salum[11] is situated a flourishing little town the seat of Justice of Washington County on the waters of blue river,—from Salum we pass over a rolling country for several miles a number of sink holes etc. We then pass over the upper end of what is called the blue river Barrons which are very similar to the Barrons of Green River;[12] shortly after leaving the Barrons we pass through Livona a poor little beginning of a town[13] 12 miles West of Salem,

[8] David Thomas, *Travels through the Western Country in the Summer of 1816* (Auburn, New York, 1819), 120; Clifford D. Carpenter, "The Early Cattle Industry in Missouri," *Missouri Historical Review*, 47:204–205 (April, 1953); Felix Renick's Memo Book, Acts of 1832 and 1833, manuscript in possession of Renick Cunningham.

[9] Manuscript in possession of Renick Cunningham.

[10] The vineyards of the Swiss around Vevay.

[11] Salem, founded five years before.

[12] Felix had made trips to the Green River Barrens of Kentucky to buy stock cattle.

[13] Livonia—still a hamlet.

the country still continues rolling and a strong Limestone Land of a pretty good quallity on to Piola[14] a handsome little town the County Seat Orrange County (and?) 10 miles West of Livona—the limestone through this country is remarkably white and has very Much the appearance of gypsum (or plaster of Paris). After leaving Peola we go over a rich rolling land until we get near the French lick when we fall into a range of steep rough hills some of them covered a heavy groth of beech with a pretty good soil and some with a mixture of White and Chestnut oak with a thin soil, these hills continue on to the East fork of White River which is about 25 Miles W. of Peola. We cross this branch of White River where it appears to be about 150 yards wid and is said to fall 7 or 8 feet in the distance of about 200 yards, has a good rock bottom with high Banks and appears to be a place pretty well calculated for water works of any kind. There is some pretty good Land along the river at this place but we soon ascend a high hill[15] into an open Barron Country which continues 16 or 17 Miles to Washington a new town the County Seat of Davies County about which there appears to be a tolerably good Country of Land which continues on 4 or 5 Miles further west to the west fork of White River which appears to be about the same size of the east fork. The land about this fork is very sandy and does not appear to have a sufficient mixture of loom to make any thing like what we wou'd call a durable or good soil, after crossing the west fork we pass over a low Bottom of about 2 Miles wide very wet and very deeply inundated and can never be of any other use than to produce an annual Bilious vevrr in every Human being who may be imprudent enough to settle within sight of it,[16] out of this Bottom we again rise into another Barron Country somewhat more rolling dryer than the Barrons between the fork, on which there is a fine groth of sedge and a considerable quantity of peavine and is an excellent Country of Range. This kind of land continues with little variation for 10 or 12 miles and within 6 or 7 miles of Vincennes when we fall into a very fair looking land covered with a fine rich groth of timber of almost every kind except black Locust Wild Cherry and Buckeye. The top of the soil look very well indeed but on a close examination we find it to be very thin and sandy and we believe not the least impregnated with a limestone quallity and for the sake of some of our old south branch friends[17] who has settled there we wish we may be mistaken when we pronounce it a land of no great durability and of course not of that real substantial value which they conceive it to be—Vincennes is situated on the east Bank of the Wabash River in a high dry and indeed a fine looking prairie but like the other land we have lately come through, two much sand and gravel to be a real valuable land,—on the 24th about 12 O Clock we cross'd the Wabash River took the left hand road which goes down the bank of the river about 4 miles. We then leave the river turn to the right across a bottom of two miles width[18] to Ambrass River,[19] this Bottom lies low and is very much inundated and at a high time of water has to be ferried all the way from Vincenns, to Ambrass River,[20] soon after crossing Ambrass River, which is about 60 yd. wide at Common water, we enter a wet land inclinable to Barrons, timber hiccory Blackoak and some white and Barron oak. This kind Land continues with little variation 5 or 6 miles when we enter

[14] Paoli, where the Madison and Louisville roads join on their way to Vincennes.

[15] Near the present boundary between Martin and Daviess counties.

[16] The Renicks' criticism of the White River country proved prophetic; it failed to achieve the agricultural and commercial development which the Whitewater and Miami valleys were to enjoy. Arlin D. Fentem and Robert Reece, A Preliminary Study of Agriculture in the Old Northwest in 1840, manuscript in possession of the authors. University of Wisconsin; Jerry Culver and Phillip Muntz, Commerce and Industry in the Old Northwest in 1840, manuscript in possession of the authors, University of Wisconsin.

[17] The South Branch of the Potomac River. This was the ancestral home of the Ohio Renicks. Probably for some 17 or 18 years before 1819 the Scioto Valley had been supplying stockers to the South Branch feeders. Robert Leslie Jones, "The Beef Cattle Industry in Ohio Prior to the Civil War," *Ohio Historical Quarterly*, 64:174 (April, July, 1955).

[18] At the south end of what was known at Purgatory Swamp.

[19] Embarrass River, so named because the bottom between this stream and the Wabash at Vincennes was embarrassed by quicksand and frequent high water. From here to St. Louis, the Renicks followed in general the Old Trace Road, which at that time had about six inns and no stagecoach service. It was troubled, furthermore, by frontier highwaymen. Solon Buck, *Illinois in 1818 (Centennial History of Illinois*, edited by Clarence Alvord, introductory volume, Chicago, 1918), 119.

[20] A few years later, the state of Illinois began trestling the road between the Wabash and the Embarrass rivers—a fabulous project which helped embarrass the state into bankruptcy.

some large Open Prairies[21] of a pretty good quality, round the edges of which the timber is black oak hiccory Jack Oak Barron Oak some Wild Cherry and a goodeal of hezel—the soil is of a dark Mulatto colour to the debth of, from one to two feet; when it changes to a redish clay mixed with gravel, it soon changes again to a yellow and sometimes to a kind of blueish white clay which continues from 18 feet to a much greater debth to the rock which is sometimes Slate and sometimes Sandstone. The land continue of this description with little variation to Higans 18 Miles west of Vincennes; on the 25th we left Higan's and traveled 32 miles to little Wabash. About one half the land we passed over this day is Open prairies nearly of the same description of those we pass'd over in the afternoon of yesterday timbered land wet and Barrony timber hiccory black white and Barron oak, the prairies generally lie rolling and although they are at present generally dry have a wet appearance, a number of Crawfish holes and some aunt hills though generally smoothe and covered with a mixture of short sedge a kind of fine wire grass and weeds of different kinds, and at this time when vegitation is in its bloom have a grand and beautiful appearance but the water since crossing the Wabash very scarce and very bad, on the 26th we traveled 37 miles about two thirds of which distance is open smoothe prairie of about the same quallity of those already described. Those planes or prairies appear to streatch from North to South to what extent we cannot tell their widths from one to twelve miles; on the 27th we entered the Grand Prairie.[22] Immediately on seting out this prairie is 23 miles wide where we pass over it and is grand indeed beyond the power of description; but rather weter than those we have previously passed over until we approach the west side when it becomes somewhat more rolling and we think of rather a better quallity than any we have yet seen, the timber round the west edge is hiccory elm Jack oak black oak etc. The soil here appears to vary a little is rather darker has none of the red clay and gravel as the former prairies but gradually changes to a white or yellow and sometimes to blue clay of a very hard tough nature and the rock appears to be much deeper, the well water a little better and somewhat hard though not a real limestone water, the Land two has something more of a lime stone appearance, the Ocau or Kaskaskias River lives a Mile or two west of the grand prairie and is here a small stream of 30 or 40 yds wide at Common water, ten Miles west of Ocau is Shoal Creek a branch of the Ocau, in the bank and bottom of which they say there is pretty plenty of limestone. The people here also say that there is a considerable body of stone Coal on this Creek and its waters—we traveled 40 Miles this day four fifths of which distance is open prairies and generally lie more rolling than the prairies previously pass'd over and are in quality and situation something similar to the west edge of the grand prairie and although these prairies are generally pretty dry at present and have really a grand and beautiful appearance yet we conceive them to be two wet to be really valuable—on the 28th we traveled 24 Miles to Edwardsvill a small town situated on Cahoga Creek[23] which is the first tolerable Mill Stream we have seen since entering the State of Illinois. It puts into the American Bottom a small distance south of edwardsvill and empties into the Mississippi a little below St. Louis—the land we pass'd over this day is generally prairie of about the same quality of those last described except the Ridge prairie—this is a high rolling prairie which streatches along parlell and some 3 or 4 Miles distant from the Bluff that divides the American bottom from the high lands, up until it comes near the Cahoga Creek, when it turns and runs parallel with said Creek to its source and continues on the same course 70 or 80 M from Edwardsvill when it is intercepted by the Sangamay or St. Gama River a branch of Illinoise. This

[21] The Renicks were now getting into prairies which were bigger than the small "plains" prairies and "oak openings" they had known in Ohio. But all the Ohio and Illinois prairies were "induced" long-grass prairie.

[22] Not to be confused with the Grand Prairie of Indiana northwest of Lafayette. The "Grand Prairie" here referred to began at a point about 17 miles west of Covington, Illinois, and swept north to the Des Plains and St. Joseph rivers. Its southern portion, between Jefferson County and the northern boundary of the present Champaign County, was really a complex of prairies and groves. Except for some of the groves, it was almost totally uninhabited in 1819. Lewis C. Beck, *A Gazeteer of the States of Illinois and Missouri* (Albany, 1823), 66, 116. Mapping of the prairie-forest boundary is difficult, because the boundary was not static but was shifting. Henry A. Gleason, "The Vegetational History of the Middle West," *Annals of the Association of American Geographers*, 11:82–83.

[23] Cahokia Creek.

prairie we conceive to be of a better quallity than any we have yet seen and is we suppose equal and somewhat similar in point of soil to the pickaway and walnut planes on the Scioto river—but some part of it weter, the growth of timber round the edge very much the same with that round the pickaway Walnut and Darby planes,[24] this prairie we are told and have every reason to believe grows rather better as it approaches the Sangamaw or St. Gama River and from the best information and that on which we have every reason to rely, the Sangamaw affords as fine a body of good land as any river in the western country of its size, in this prairie we seen the first work of the gofer, which is a small animal something similar to the Mole though larger and much activer, they work in the ground and throw up hills something like the aunt, though much larger being sometimes three feet in hight and from 6 to 8 feet (long?), and shew a compleat specimen of the soil wherever they work, but are never found only in a rich dry loose soil, except sometimes in sandy land that has not a very rich appearance though it must be loose and dry—from Edwardsvill to St. Louis a distance of about 20 miles the first 2 miles we pass over a black oak and hiccory land of rather an inferior quality we then fall into a body of good upland which continues to the Bluff that divides the American bottom from the high lands; here the traveler witnesses one of the grandest prospects the imagination can conceive of; the Bluff is at this place from 100 to 150 feet high the American bottom immediately below streatching along the east margin of the Missipi . . . where we entered the Bottom the Cahoca Creek passes down at about a miles distance from the bluff and gradually widens out from it, until it empties itself into the Missippi a small distance below St. Louis. The greater part of the Bottom between the Creek and Bluff is prairie of the finest quallity and wants nothing but industry and art to afford some of the finest farms that any country can boast of but the inhabitance who now stay (I will not say livs) there are a motely mixture of french Spaniards Indians and the last class of Americans, whose agricultural persuits, extend no farther than dire necessity dictates which is barely to keep soul and body together—this Bottom abounds with the works of Antiquity particularly with mounds, some of which we suppos'd to be 50 feet in hight and contain one fourth of an acre of level ground on the top; near the mouth of Cahoca we cross it and pass through a little village[25] on the east bank of the Mississippi which we also cross oposite to St. Louis which is situated on the west bank of the river, and as a site for a town is certainly one of Natures Masterpieces, the first bank is compos'd of easy assent, and rises considerably above high water mark, to the first bench which is from 80 to 120 yards wide, where the lower part of the town stands, we then raise another gradual assent of from 30 to 40 feet from whence turn which way you will, you have a grand delightful prospect, facing to the east you have in the first place all the lower part of the town in full view from which the attention is very soon attracted by the grand Majestic Father of Rivers the Missisippi—in his Majesty rolling on, alike thoughtless and regardless of all obtruction or impediment, whose surface is now partially, and ere long will literally, be covered with the busy engines of commerce, in the next place or small elevation of the sight will bring to

[24] Three Ohio prairies with which the Renicks were familiar. The Pickaway Plains, which may be viewed from U. S. Highway 23 from two to five miles south of Circleville, were the first prairies encountered by the white man in his westward movement. The plains are elliptical in shape and measure seven miles by four miles at their greatest diameters. The upper and largest plain stands 150 feet above the bed of the Scioto River. Hospitable to settlement because of their friable sod and the nearness of timber, the Pickaway Plains were broken to corn by 1796, with the deep black soil producing up to 100 bushels per acre.

The Walnut Plains, also in the Scioto Valley but farther north, lie along Big Walnut Creek in eastern Franklin and eastern Delaware counties. They were well drained; but the tablelands of Delaware County between the streams were not and hence were similar in wetness to the Ridge Prairie of Illinois.

The Darby Plains, taking their name from Big Darby Creek, lie in Union County and on both sides of the Pickaway-Madison and Franklin-Madison county lines. This is an almost imperceptibly sloping country in which the West-Central Ohio upland falls away to the Scioto Valley. The interspersal of burr and white oak made the Darby Plains similar in appearance to the "oak openings" of Champaign County, but flatter. The soil is mostly clay, good for grass; some wheat and corn were grown, but portions of the Darby Plains were too wet for cultivation. The region later developed, in addition to beef and hog fattening, a dairy industry for the Cincinnati market. Ohio State Board of Agriculture, *First Annual Report* (1846), 34–35, 59–60; *Second Annual Report* (1847), 73–75; Writers' Program of the Work Projects Administration, *The Ohio Guide* (New York, 1940), 571.

[25] Probably the village of Cahokia.

your view the great and incomparable American Bottom which would be a most desirable place was it not that it must be sickly until the population become so great as to enable them to Dike out the Mississippi and drain the large bodies of wet land of which the Bottom abounds; turning to the North or South you have Both river an[d] Bottom in view for a long distance and faceing about to the west [from St. Louis] you have a beautiful high dry and fertile plane gradually rising as far as the eye can extend—on the way to St. Charles this plane or prairie continues to be of a very good quality and a goodeal of gofer work for 6 or 7 Miles when the gofer work ceases the land becomes more rolling and of an inferior quality though not bad, and so continues with little variation until we get near the Bluff of the Missouri Bottom when the land grows much richer and covered with a fine groth of timber, we then soon decend into the Bottom which is about two Miles wide oposite to St. Charles and of excellent quallity of soil but covered with a most tremendous growth of timber—St. Charles is a small town situated on the north side of the Missouri 20 miles North west of St. Louis and between them there is some similarity of situation though that of St. Charles is much more contracted by the first bench being narrower the assent on the second more abrupt and the level land back neither so extensive or of so good a quallity, the Missouri at this place appears to be somewhere about ¾ of a Mile wide, and flows, or rather rolls and boiles down, with a very Bold current, yet we think the current not so rapid as to prevent the successful navigation by steam bots poperly contructed[26]—from Edwardsvill the most common way for travelers going up the Missouri, or indeed up the Mississippi is to cross it above the Mouth of Missouri . . . at the ferry on the Mississipp above the Junction the Mississippi is said to be one mile and 20 poles wide; and is a smoothe and beautiful river,—the Missouri at their Junction is not so wide but contains a much larger quantity of water, and appears indignantly to flow or rather roll in; and take possession of at least three fourths of the channel before it even deigns to suffer a mixture of their waters; and at once arogantly takes to itself, and changes the character of the Mississippi from that of a smooth and easy glideing stream to that of a bold rappid and rolling current—on leaving the ferry we travel 5 or 6 Miles over a low rich and heavy timbered Bottom thence for 2 or three alternately timber and prairie all very rich when we arrive at portage Desiou,[27] a small French Village on the Bank of the Mississippi—from thence up the Misouri to St. Charles a distance of about twelve miles we pass over some very fine rich prairies and some of an inferior quallity which appears to be prinsipally composed of a bed of sand thinly covered with grass and small grapevines,—on the 1st June we set out from St. Charles up the Mississippi. The first 10 or 12 miles we pass over is generally a rolling country something similar to the Green River Barrons thinly timbered with a mixture of Black Jack, Jack oak, black oak, and some white oak, and well set with a luxurient growth of Sedge grass—we then come into land of a better quallity about one half of which is smoothe Open Rolling prairie generally high and dry the limestone rock appears in plenty about the creeks and we suppose may with propriety be termed a limestone land, this kind of country with little variation continues throughout this days travel say 38 or 40 miles and will afford a good settlement but has not yet came into market, except a few Spanish Claims[28]—on the 2nd the land continued nearly the same for about 25 miles, when we come into Ramsey Creek Settlement[29] which is a rich rolling Land covered with a heavy growth of elm hackberry blue ash wild Cherry honey Locust Boxelder etc.; under growth (Spice?), this land continued without much varation the balance of our days travel 6 or 7 Miles to Clarkvill,[30] a new town lately laid out by Colo. John Millar[31] and others on the west Bank

[26] This very year the steamboat *Independence* was realizing the Renicks' prophecy.

[27] Now Port Sioux. The historic two-mile portage from here to the Missouri saved about 25 miles of river travel.

[28] Disposition of the "Spanish claims"—claims of Americans who held land grants from the Spanish government—was keeping this land closed. Farther west, two ranges extending from the Missouri to the mouth of the Salt—700,000 acres in all—had been put on the market seven months before, under the terms of the Harrison Land Law. *Niles Weekly Register*, October 17, 1818, p. 125.

[29] Located in the Annada Valley.

[30] The "Appletown" of steamboat lore.

[31] Colonel John Miller had resigned from the army the year before. In 1821, he became registrar of the land office at Franklin (Howard County), Missouri. Governor of Missouri from 1825 to 1833, he was sympathetic to Andrew Jackson but deplored Benton's spirit of partisanship.

of the Mississippi, the appearance of which led us to an inquiry respecting the sites for towns on the Mississippi. The answer was that there were but few and out of those few very few indeed that could be called good—on the 3rd we proceded on up the Mississippi though having it in places some 2 or 3 miles over a rolling Country some of which is rich and some thin Land until we arive at Lucciannavill[32] another small town on the Mississippi about 2 miles below the Mouth of Salt River and 12 miles Above Clarksvill and is at this time the County Seat of pike County, the site is some better than Clarksvill but two contracted, we then left the Mississippi and turned up Salt River[33] through some as rich Bottoms as any river can boast of, generally covered with a heavy growth of timber, there are some Bottom prairies on this river but they are generally two wet for Cultivation—we ended this days travel at Mr. Matsons which is on Salt River 18 or 20 Miles from its Mouth—on the 4th we crossed Salt River and turned over a rolling or rather hilly limestone Country 8 or 10 Miles to Saverton a new laid out town on the Mississippi near a Salt lick known by the name of Gilberts lick where they are now makeing Salt and say that 250 gallons of water makes a bushel but from other information we had reason to believe that twice that quantity would scarcely do it, Saverton is a handsome site for a town but is surrounded by a rough hilly Country—we then proceded up the Mississippi through some very rough narrows and sometimes was compeld to leave the river and clime over some very high Bluffs which afforded us a fine view of the Bottom on the oposite side of the river which here appears to be very wide and extensive—we arrive in the evening at another newly laid out town calld Hanible on the Mississippi at the Mouth of Bear Creek which we was told was only 8 or 9 Miles above Savington but we thought it twice that distance, this site is not as good as Savington but is much easier of access and we suppose must be the place of deposit for a large scope of Country as there is no other site for a town for 30 or 40 Miles up the river owing to a large wet Bottom that commences a small distance above this place and continues up near to the Mouth of Wyconda River[34]—on the 5th we left the Mississippi to view the Country about the head of Bear Creek and the two rivers[35] found the land rolling and soile thin for 2 or 3 Miles, we then entered a body of good land which continues 6 or 7 Miles to Mr. Gask's on south two River.[36] Here we halted and between this and the Mouth of Wyconda River a distance of between 20 and 30 miles we spent a week examined the arms of the grand prarie that puts down near to Mr. Gask's and also the prairie between the two Rivers—these praries have a dark good looking soile of various debths say from 6 inches to two feet, it then changes to a tough blue clay that appears to be compleatly water proof, of course all the water that falls must pass slowly away through this surface of soil to the drains that carries it of, or lie in soil and on the surface until exhaled by the heat of the sun, hence the appearance which almost all the high prairies here have of holding or lying under too much water for two great a portion of the year to render them really and truely valuable,—there are several good bodies of good looking timber'd land on or near the two rivers and Fabius Rivers,[37] the best of which is covered with a growth of white elm hackberry Lynn honey locust wild cherry white hicory with a small mixture of blue ash walnut and Shugar tree etc. Some other parts the prinsipal timber is Jack white black and pin oak under growth in the best land some poppaw and white thorn next best white thorn black haw and hazel and poorer kind scrub bush. The prarie between North two River and South Fabius we thought to be rather dryer and of a little better quallity than the prairies below and one immediately above North Fabius we thought still a little better though it is but small, here is the only gofer work we seen on the high land of the

[32] Louisiana, platted the year before.

[33] The river of the frontier political expression, "to row a man up Salt River," which meant to discomfit him or to defeat him politically. Writers Program of the Work Projects Administration, *Missouri* (New York, 1940), 445.

[34] Wyaconda or Waconda River or Creek.

[35] The Two Rivers are located on the Mississippi about 20 miles upstream from Hannibal. The curious name is derived from the fact that the two rivers flow into the Mississippi very near each other and may once have had a common mouth.

[36] Sometimes simply called "South River." Major Zebulon Pike in 1810 had named it "Bar River." Beck, *Gazeteer of the States of Illinois and Missouri*, 316.

[37] The branches of Fabius or Fabba River or Creek lie about 12 and 18 miles, respectively, north of the North Two River. U. S. Highway 61 crosses both branches just south of Taylor. The mouth of the Fabius is about two miles upstream from the mouths of the Two, and about two miles downstream from Quincy.

Mississippi above the Mouth of the Missouri. Here we fell into the Bottom which we before observed commenced a little above the Mouth of Bear Creek and continued up near to the Mouth of Wyconda River, this Bottom is from one to five miles wide and almost all prarie some of which is high dry and of the best quality of Bottom land, but two great a portion of it lies two low and being subject to annual inundations makes it at present intirely two wet for cultivation or health, Wyconda River is about 60 yards wide at its Mouth when there is a town laid out bareing the same name, and although it is yet without an inhabitant[38] from its local situation haveing Wyconda which is said to be a good Mill stream passing through it and a pretty good Country Round it, we have no doubt will one day be a place of considerable business—the two Fabius's and North two river is also said to be good Mill streames they all have rock bottoms and in some places considerable falls —on the 13th we set out from Mr. Gask's with the intention of striking over to some of the upper settlements on Salt River and thence across the grand prairie to the Missouri—we passed over a number of praries of about the same quallity of those about the two rivers and fell on to Salt River at Freemores lick which is 10 or 12 miles above Mr. Matsons where we had before left it, at this lick there is 8 or ten springs of salt water that rises on perhaps as many acres of ground, the water appears to be pretty much of the same quallity of the blue licks of Kentucky, though not quite so impregnated with sulphur,[39] 3 or 4 Miles from this lick is a little town has lately been laid out cald London[40] to which we repaired for the night, and now we have explored for 200 miles and are about to turn our backs on the Mississippi we Must Make some general observations—in the first place, the River itself, is a beautiful smoothe glideing stream, generally very wide for the portion of Country it draines above the Mouth of the Missouri, which would induce us to believe that in a dry season it must get very shallow; the Bottoms are extensive and very rich, but a great proportion of them lies two low and are subject to annual inundations which causes a great part of them to be two wet for cultivation and they must inevitably be sickly, and so they must remain until the population becomes numerous enough to levy out the river and drain those wet bottoms, the high lands we have already describ'd as retaining two much water to make them as valuable as they would from a superficial view appear to be—and yet upon the whole take it as a Country we must call it a good Country possesing many advantages as to soil navigation Mill streams etc. etc. but the disadvantages we have described particularly that of its haveing in our opinion to remain for a long time sickly, induces us to leave it without makeing any entries to try and find something more to our minds, and tomorrow we shall set out and steer as straight as we can through the grand prairie for the Lower part of Boones lick settlement on the Missouri—on the 14th we accordingly left the Citty of London and in less than a miles travel got into the grand prairie in which we traveled both faithfully and speedily all day somewhat west of south and found the prairie generally of about the same quallity of soile of those nearer the Mississippi perhaps not quite as rolling and in some places rather weter,—here we conceive Nature will for a long time baffle all the attempts of art, and must continue to clothe the earth with that spontanious and beautiful covering which she now wares, the timber being at such a distance as not to justify the expense of halling consequently settlement can never be made unless Coal should be found in abundance sufficient for fewel in that case hedging and ditching may supply the place of fences and steam or the inclin'd wheel must be substituted for water to work all kinds of machinery—here the encroaches of the white man has not yet extinguished the Native Claim of the wild animals to the forest, and they still in abundance hold almost undisturbed possession. The deer the elk and in some places the Buffelow are seen quietly grazing with their young—the prairie dog or woolf the Catamount as well as all other beasts of prey, (Natives of these forests) are frequently heard and sometimes seen skulking through the grass in order to prey on their more innocent neighbours,—the great and grand prospect that this great prarie in many places affords where on turning around two thirds of the horizen would appear with-

[38] John Bozarth from Kentucky had just laid out the town in 1819. The name was soon changed to La Grange. Beck, *Gazeteer of the States of Illinois and Missouri*, 334.

[39] In October 1816, while on his way to the Kentucky range, Felix had stopped at Blue Licks to refresh himself with a drink of fresh-pressed cider and to examine the historic springs. Felix Renick's Account Book, manuscript in possession of Renick Cunningham.

[40] New London.

out timber and the balance the timber at great distance, together with almost a perpetual view of numbers of those wild animals, excites a feeling not very easy described, and would have made a scenery both romantick and agreeable had it not been for the infernal prarie flies, which for the first time this day attacked us, or rather our horses, soon after we first entered the prarie, and increas'd with the days travel, and to them we are indebted for the speed and diligence of our days journey, for otherwise they would not admit us to travel. The moment we made a halt our horses were literally covered with them which caused the poor beasts to become frantick and unmanageable otherwise than in a long trot or gallop—these flies was similar to what we call the green headed horse fly and you can scarcely form an idea of their numbers, they soon taught us that it would be necessary to travel in Indian file and to go before by turns as they were much worst on the foremost horse; we accordingly agreed to take the lead alternately for one hour at a time with a bunch of Bushes or weeds in our hands to keep them of as well as we could, but we soon had to reduce the time to half an hour and finally to 15 minutes as it was impossible for man or horse to hold out any longer in the severe contest he had to encounter; there was now six of us, haveing in the fore part of the day with two others traveling the same route. Sometime in the afternoon we discovered the apparance of the tops of some timber at a long distance ahead a little to the left of our course which we concluded to make to and which we reach'd about sun set. This we found to be a narrow slip streaching along a small creek which afforded us and our poor horses a very welcome supply of water not having met with any for a considerable distance. Here we strick camp and after takeing some refreshment which we had brought with us we held a Counsel on the most proper mode of traveling it would be best for us to adopt in order most effectually to escape the flies and thereby save our horses which we now began plainly to discover could not hold out long under the hard fatigue and great loss of blood which they would necessarily have to encounter in traveling in the way we had this day done—the exchange of sentiments on this subject soon resulted in a general opinion that it would be best to travel by night and lie by in the day and as the Moon was but a few days past the full we should have the advantage of her light the greater part of the night, we accordingly soon prepared ourselves to take a little rest on our Blankets before a comfortable fire we had made and to rise again in the course of two or three hours which we did and persu'd our journey until about six O clock in the morning when the flies again got so excessively bad that we were under the disagreeable necessity of fairly yielding the field to them and file off to the right to a strip of timber that lay along a small branch and there make an arbour to save our horses by cuting small saplings and leaning them together and then make smokes round them which had measureably the desired effect. Here we lay all day and endeavered to make up some of the previous nights loss of sleep but not being accustomed to sleep in the day time the flies being very troublesome and haveing our horses to attend to we receiv'd very little refreshment—about sundown we again renewed our action with our enemies the flies and had a hard time with them until dark still persuing our course through the prairie as well as we could when early in the night we struck the Boons lick or Franklin Road[41] as we afterwards learnt between 50 and 60 miles below the latter and between 60 and 70 below the former, for a while previous to falling into this road the moon not yet being up we had for the first time met with some difficulty being intercepted by some very ugly deep gullies one of which one of our company who was then in the lead fell into horse and all to the debth of 8 or 10 feet but fortunately receiv'd no injury and with some assistance was soon extricated. The next one we came to we were shy of and to avoid it turnd very much from our course, which fortunately threw into the road much sooner than our course would otherwise have done. We came in sight of this road at so criticle a moment when we knew not where we were excited so lively a sensation that it volentarily brought forth a general shout from our company. We then with our spirits very much elevated took the road toward Franklin and soon found by meeting travelers that we were not the only people that were under the disagreeable necessity of traveling after night

[41] One of the historic westward highways, this trail which began at St. Charles went on west to Fort Osage, near the sites of the future Kansas City and Independence. Two years before the Renicks struck it, the Boone's Lick Trail had been surveyed in St. Charles and Howard counties, but with little effect; as late as the 1840's, it was still a dirt road with confusing cutoffs. Work Projects Administration, *Missouri*, 344.

and thereby exposeing themselves to save their horses. After the impression geting into the road had made on us had subsided we soon found our spirits sunk more under parr than that circumstance had risen them above, haveing no course to steer and little to attract our attention we soon fell into that stupor that naturally follows fatigue and want of rest and after traveling 12 or 15 miles as we supposed we became so exhausted as to be unable to procede and was obliged to obey the imperius Calls of Nature, we accordingly comeing to a small branch called Camp branch, turned out our horses, and not being able to procure wood we had to lie down in the open prarie without fire, and unfortunately made our bed too near the road which causd us to be frequently disturbed by travelers passing and hallooing at us telling us it was time to be mooveing if we intended to escape our worst enemy by clearing the grand prarie before day light, however the indian with his skelping knife would hardly have rousd us until sleep that sweetest and least to be done with out of all blessings had by a relaxation of the system given Nature a chance to regain a sufficiency of Native strength and spirit to inable us to pursue our journey and which it took two or three hours to accomplish when we again arose and started on; dureing the latter part of our rout you may well suppose we had but little opportunity of makeing any observations on the land or timber—when daylight appeared we found ourselves within 3 or 4 miles of the timber where it projects further North into the grand prarie and where the present road leaves it, the Land here appeared to us to be better than any we had seen in the prarie lies high and dry the soile deeper and not underpind with so tough a clay as the prairies on the Mississippi—.

Thus ends the journal. The account is resumed, however, in the memorandum:

. . . when day appeard we found ourselves within 3 or 4 miles of the west end of the grand prairie where the land appeard to be better than any other part of the prairie we had seen high dry and rich with a great appearance of gofer work which we conceive to be a symtom of rich dry loos [*sic.* loose] land. The small branches we crossed after leaving the prairie was timbered with a mixture of Jack oak Red oak hiccory pin oak white oak burr oak elm, etc. The timbered land after leaving the prairie for several miles is rolling or Broken not rich but a tolerably looking soil timbered with Jack oak white oak red oak hiccory etc.—as we advance toward franklin the land gets richer though still Broken and timbered with the greatest variety of timber that I ever saw growing on the same land, we see white oak Burr oak Jack oak black oak pin oak red oak black and white walnut honey Locust white black and shell bark hiccory Lynn Boxelder White and red elm common and blue ash Sassafrass buckeye Iron wood birch and Mulberry all growing close together, the under groth poppaw hazel and prickly ash—about three miles East of Franklin we fall into the Missouri Bottom in which Franklin is situated the cite of which we consider unfavourable, being on a [illegible] Bank of the Missouri where the bottom appears to be a compleat bed of sand,[42] on the 18 we set out from Franklin up the river through a fine Bottom and crossd the river about 14 miles above Franklin and then passd over some broken Barrons and fell into coxes Bottom which is a very handsome bottom of first rate land though not very large. On the 19th we persued up the river and again crossd over 4 or 5 ms. of Broken Barrons into the big bottom kept up it a small distance and turned out into a rolling rich prairie which we conceiv'd to be superior in quallity to any thing of the kind we had seen, we traveled about 20 miles in this prairie with little variation of soil or situation, the width of which we could not assertain as we was seldom in sight of timber to the right and left at the same time, at the end of the 20 ms. we decended into what is calld the peteatsaw planes.[43] They are about 7 ms. long and 3 or 4 wide, much leveler than the prairies generally are and extend from the salt frk of Lemean Creek[44] to the Misouri Bluff. Im-

[42] This town, now known as Old Franklin, eventually became a ghost town, perhaps in part because of its "unfavorable cite." When the Renicks visited it in 1819, however, it was a booming town which contained the land office for the District of Howard; and it was becoming the outfitting point for the Santa Fe Trail. Cheap steamboat transportation at length enabled the transfer of this function to points farther up the Missouri River: Lexington, Independence, and Westport.

[43] Now called the 'Tit Saw Plains.

[44] The muddy Lamine Creek or River, so named because of the deposits of lead along its banks, is seventy yards wide at its mouth, was navigable by steamboat to the Salt Fork, and is the biggest stream between the Osage and the Kaw. The Salt Fork, fed by numerous salt springs, was described in 1823 as being "impregnated with salt as strongly as sea-water from . . . June to . . . November." Beck, *Gazeteer of the States of Illinois and Missouri*, 309. Missouri state route 41 crosses the Salt

mediately under the bluff lies the peteatsaw bottom[45] which is . . . 4 (miles) wide in the widest place. About one half of this bottom which lies next the bluff is prairie and when we get near the upper end, the timber gives out and the river in full view approaches within about a mile of the bluff and standing on the bluff at this place you have the river the Bottom the planes and the high prairies back of the planes all in view and takeing all together certainly makes one of the most grand and beautiful prospects I ever beheld, we spent the 20th examining the land about peteatsaw planes and Bottom found several good springs at the foot of the Bluff and the land appears fertile and good and if it was not so destitute of timber it would be a very desirable place to live—on the 25 Brother Wm. set out up the river 12 or 15 miles further in order to cross and go down on the north side[46] and I turned my face toward home about 50 or 55 miles above franklin. I persued the river bottom down this day about 25 miles seen nothing very desirable. The Bottoms are generally prairie next the Bluff but are all rather wet. At the upper end of Edminson bottom[47] Lockhart has lain off a town[48] immediately below which Edminsons or bever Creek puts into the Bottom where there is a fine tract of land of 6 or 700 acres covered with a Madrid Claim and held by Genl. Smith[49] but the Misouri is cuting this land very fast and has got pretty near and will in all probability cut its way into the creek and go with it 3 or 4 miles lower down where the creek at present puts into the river and should it do so it will ruin this tract as well as several others. There are some very fine land in this Bottom out of which we pass over a bluff into a little town calld Jefferson which is situated in the upper end of the Big Bottom on a pretty good cite. The Misouri here has a low rock bank and a gradual assent back and if situation and country will make a town this place must one day be a place of some importance have Edmonsons Bottom immediately above and the big bottom below which contains a large quantity of the finest land in the country and large extensive and rich planes seting in immediately back of the town, with those advantages if it does not become a place of considerable business the fault will not be in the country but the want of energy in the inhabitance.[50] I crossed the river at Clarks ferry at the upper end of Coxes Bottom and returned to Mr. Williams where Mr. Davies and Mr. Guinn had stop'd to recruit their horses. This Mr. Williams is one of Clarks and Lewiss party who passd over the Rocky Mtns. and who is perhaps as well acquainted with the Misouri from its source to its moth as any other man, he says the better of the river is still above and not yet came into market the next morning I set out again up the river to Terrels ferry[51] crossd and took a s. e. direction for about 20 ms. to two salt works which is erected on blackwater a branch of the lemean[52] found this distance nearly all prairie of a very good quallity but very destitute of timber, the water at those works is the best that I ever tasted. Mr. Lockhart[53] the owner of one of the works informed me that it took about 180 gals. of water for a bushel of salt. Their furnaces are constructed on a different plan

Fork just east of Marshall and again north of Marshall.

[45] The 'Tit Saw Bottom is now part of Van Meter State Park.

[46] William was going to explore a corner of the Missouri Military Bounty Land Tract, which lay on the north side of the river. Inasmuch as scrip for this tract was being sold in Chillicothe, Ohio, William may have brought some with him. Missouri statutes required that it be recorded at the county seat in Missouri within three months of purchase. *Scioto Gazette and Fredonian Chronicle*, August 6, 1819; Beck, *Gazeteer of the States of Illinois and Missouri*, 293. If William did have such scrip, he decided not to use it, for he entered land in Saline County, across the river. On July 6, he entered the west half of the southeast quarter of section 33, township 52, range 22; and on July 16, the east half of the southeast quarter of section 8 and the northeast quarter of section 4, township 51, range 22. *History of Saline County, Missouri* (St. Louis, 1881), 160.

[47] Edmonston's.

[48] This is a town which was platted but, I believe, never came into being. Perhaps the Missouri washed away the townsite.

[49] General Thomas A. Smith, a Virginian who had come to Missouri after the War of 1812. In the late 1820's, Smith bought another tract in the same county and successfully raised corn on the prairie. Work Projects Administration, *Missouri*, 64.

[50] Not to be confused with Jefferson City, this town, despite Felix's optimistic prediction, eventually disappeared. The Big Bottom, immediately below, extends downstream to the present Saline City.

[51] Henry Ferril, a settler from Kentucky. His ferry was at the site of the present town of Miami. *History of Saline County*, 832.

[52] Originating near Warrensburg, the Blackwater Fork of the Lamine flows along U. S. route 40 east of Sweet Springs.

[53] Charles Lockhart. See *History of Saline County*, 164.

from any I have seen haveing a pit immediately behind the front kettels of 12 or 15 feet sqaure down even with the Bottom of the furnace with an air hole arched over and a wall from thence up to the front kettles this air hole answers the double purpose of rakeing the furnace through, and giveing air to the fier which causes it to burn better and the furnace to draw better, and they say requires much less wood—I returned to the Salt fork of Lemean and proceded down it some distance found the prairies still good with timber enough along the branches to make a pretty good settlement, these creeks are fed so much from salt springs that they are all sufficiently brackish for stock,[54] I returned the next day back to Mr. Williams and again set down the river to fortherupstead[?] whire I had appointed to meet Brother Wm. passd near Boons lick found the land considerably broken and not very rich though very well timbered, on meeting Wm. we concluded to make some entries at the peteatsaw planes but as there was some reason to fear that we had not correctly assertained the way the lines run we got a compass and Mr. Davies and myself returnd to the planes and satisfied ourselves with respect to the lines, and then went up the river 14 or 15 ms. and crossd over[55] into the Sugartree and from thence into the Walkingdaw[56] prairie. The Sugartree Bottom is a remarkably fine Bottom,[57] extending from the mouth of the Walkingdaw river to the mouth of Crooked river,[58] a distance of about 30 miles. This bottom like the other Bottoms of the Misouri appears to be composed of different strattas of earth and sand down as far as the edge of the water and covered with a fine groth of timber of every kind that generally grow on rich bottoms except black locust of which there is none in the country, the low bottoms which appear to have been made last are generally covered with cotton wood, the higher bottoms and those which appear to have been longer made are covered with walnut Bur oak Mulberry honey Locust hackberry wild cherry etc. and appear to be elevated from 8 to 12 feet above the common high water mark, and has a verry fertile appearance and produces every thing we see growing, in great abundance. The Walkingdaw prairie streaches along on the north and adjoining the Sugartree Bottom from the mouth of the Walkingdaw to Crooked river and up it for 10 or 15 miles is from 6 to 8 miles wide and elevated generally from 6 to 10 feet above the level of the Bottom and has every appearance of haveing been made by the river and is certainly one of the finest richest and most beautiful body of land that I ever saw, we spent two or three days here examining some lines, and on the 3rd of July we again turned our faces toward home, and persued the same rout we came down to the grand prairie where we struck the road when we came across from Salt river; from that we traveled the common road down through the prairies some distance from the Misouri about 80 ms. to the forks of the road that we traveled when we went up the Mississippi. We found three fourths at least of this distance open smoothe prairie of a pretty good quallity the balance timbered with scrubby oak and hiccory and land not very good. From thence we persued the same rout we came by the way of St. Charles to St. Louis where we crossd the Mississippi and took a different rout from that which we went out to Shoal creek a distance of about 40 miles ⅘th of which distance is open smoothe prairie of a pretty good quallity particularly the Ridge prairie which we think is as good or better than it is where we crossd it when we went out and the looking glass prairie is also a prairie of good quallity, at Shoal creek we fell into the same road we traveled out and continued on that rout.

[54] One reason the shorthorn industry in Missouri was early attracted to the Lamine-Boone's Lick country. Carpenter, "The Early Cattle Industry in Missouri," 201.

[55] That is, they crossed the Missouri River.

[56] Wakenda.

[57] Approximately the eastern half of the Sugartree Bottom lay in the bounty tract. The bottom is now traversed over most of its length by Missouri state route 10 between Carrolton and Hardin.

[58] Crooked River flows into the Missouri about two miles downstream from Lexington.

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*Compiled by*

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## BOOK REVIEWS

*Dr. J. G. M. Ramsey. Autobiography and Letters.* Edited by William B. Hesseltine. (Nashville, Tennessee Historical Commission, 1954, xvi, 367 p., illustrations.)

James Gettys McCready Ramsey (1797–1884), as Professor Heseltine observes, was a man of exceptional versatility. He was a physician, farmer, poet, historian, a trustee of colleges, a president of banks, organizer and officer of railroads, and a thinker or philosopher concerned with the problems of the South. The breadth and variety of his interests are revealed in the pages of his *Autobiography and Letters*, an important contribution to the history of East Tennessee and the South generally. Readers of *Agricultural History* will be interested in his views on agriculture, the labor system, markets, and the modes of transportation suited to serve the needs of the districts of the old-time upper Tennessee valley. Starting from solidly grounded local considerations pertaining to his home area, Ramsey developed an original and valid theory of economics and politics for the improve-

ment of agriculture and business in that portion of the mountain South. In his brilliant and penetrating introductory essay, which prefaces the autobiography, Professor Hesseltine shows the bearings of these "Mecklenburg Politics" on the history of East Tennessee and teaches at the same time a much-needed lesson on the utility of the localistic approach to the study of state and regional history. Hesseltine's introduction is a most provocative piece of writing, and deserves a wide audience.

Ramsey in 1858 wrote a series of letters on the "Industrial Necessities of the South" (pp. 83–97). In these he foresaw the breakup of the Union. His ideas therein had place for a possible eventual revival of the African slave trade to aid the South.

These autobiographical pages abound with matters of interest to historians of Southern agriculture. Dr. Ramsey had a fine feeling for the features of landscape and topography in his part of the country, an appreciative eye for a well improved establishment with its stone residence, smokehouse, timber mills, and well-cared for bottom lands. He had a loving regard for the carefully maintained seats of the gentry of the South, with their outbuildings and quarters. His words on the mansion, "Swan Pond," express and transmit the spirit of a Tennessee landholder who was strongly rooted in his own locale, who loved its inherited traditions and values, and grieved at the destruction wrought upon it by the war.

Incidental observations and judgments on the characteristics of Knoxville after the war reveal the attitudes of an old-time "improver" toward the new bustling, industrialized life of post-bellum times.

Hearty commendations to the members of the Publications Committee of the Tennessee Historical Commission for their decision to publish an important manuscript, and congratulations to the publishers on the production of a well-printed, neatly bound volume. The notes contributed by Professor Hesseltine enhance the value of the text.

*Fulmer Mood, University of Texas*

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*This Is Yours, The Montana Farmers Union and Its Cooperative Associations.* By Mildred K. Stoltz. (St. Paul, The Lund Press, 1956, viii, 501 p., index.)

The author of this book, Mrs. Mildred K. Stoltz, has been connected with the educational work of the Farmers Union in Montana for many years. Because of her position, Mrs. Stoltz has been able to speak with firsthand knowledge on many phases of the Union's development in that state. The book is divided into three major parts. The first section of 265 pages traces the history of the Montana Farmers Union from its beginning in 1912 to the present time. The second section deals with the various Farmers Union cooperative associations, and a final reference division contains a great deal of valuable information on the organization's officers, membership, finances, and other important aspects of the Union's history in Montana. Throughout the entire book there is evidence that the author has had access to the important records of the organization.

The history of the Farmers Union in Montana has been one of ups and downs, of successes and failures. By 1919, the membership had dropped to about 350 and the treasury balance was $7.57. Until 1928, when a big drive succeeded in adding several thousand members, the Montana Farmers Union had to fight a stiff battle for existence. Mrs. Stoltz gives a good picture of the Union's struggle for growth in the face of indifference, drouth, and low farm prices. This book emphasizes just how difficult it was for farm organizations to gain and hold members until specific economic services were provided. The Montana Farmers Union did not become a thriving organization until cooperatives were formed and dues were collected automatically from the individual farmer's dividends. This is known as the check-off system. One of the greatest drawing cards has been the Union's provision of more economical insurance for farmers. After 1937, the membership grew steadily and by 1955 the Montana Farmers Union had nearly 15,000 family memberships.

Despite some good features, this book is disappointing in most respects. It is rambling, loose-jointed, and undigested. The reader is given raw material, not a finished product. For example, the Union's state legislative objectives are listed in detail, year after year, but the reader is left to wonder how or when these objectives were achieved in the Montana legislature. Mrs. Stoltz discusses the campaign for farm relief in the 1920's, but the reader remains in doubt as to just how Montana farmers felt or what part they played in the drive for federal aid. The author mentions the conflict within the Farmers Union over support of the Federal Farm Board, but there is no analysis of this important matter. And just where did the Montana organization stand in the conservative-radical split in 1930 when John A. Simpson was elected national president? Mrs. Stoltz has failed to write a real history of the Montana Farmers Union or to show the organization's relationship with the national body.

For some reason or other historians have tended to shy away from serious historical studies of the three major farm organizations of the twentieth century—Grange, Farmers Union, and Farm Bureau. Much of the writing has been done by those within the various organizations themselves. The results have not been very good and the book under consideration is no exception. It is time that the farm organizations, as well as business enterprises, open their records to competent historians so that these important aspects of modern economic and political life can be placed in their proper perspective.

*Gilbert C. Fite, University of Oklahoma*

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*My Sixty Years with Rural Youth.* By T. A. Erickson with the assistance of Anna North Cott. (Minneapolis, University of Minnesota Press, 1956, xiii, 162 p., illustrations, and index, $2.75.)

By recalling his experiences as one of the pioneers of a new kind of education designed to increase the self-confidence and professional competence of farm youth, Erickson supplements Franklin M. Reck's, *The 4-H Story* with warm personal detail.

The 4-H ideal was built into Erickson on a farm in Douglas county, Minnesota, where he was born

to Swedish Lutheran immigrant parents in 1871. His father deeply believed that a farmer should be a happy man entitled to the enjoyment of some of the amenities of life. Accordingly, he built a house with a view on a lake, surrounded by five acres of mown grass, shrubs, flower beds, crabapple and Duchess apple trees. And unlike many farm fathers of his time, he permitted his children to keep the money from the sale of their livestock and produce.

Erickson's formal education was obtained in a one-room school, a three-year high school, and by sketchy study at the universities of Minnesota and Nebraska. Practical experience was received during a brief period as head of the Swedish department of Nebraska Wesleyan University and as country school teacher and superintendent from 1901–1912. Thereafter he was Rural School Specialist at the University Farm until his academic retirement in 1940.

His special contribution to the club movement was his emphasis upon attention-arousing contests which culminated at school, county, and state fairs. As early as 1902, Erickson sponsored a fair in the school house of the little town of Nelson at which the children exhibited pumpkins which they had grown and samples of their cooking and school work. Within a few years, under Erickson's leadership, the children were exhibiting at local fairs and even at the big state fair at Minneapolis, strawberries, tomatoes, and Minnesota 13 seed corn, a variety which later became almost fabulous in value.

Subsequently, the Minnesota state 4-H fair exhibits won fame by the inclusions of health and farm safety, and home beautification. A huge monolithic concrete building was completed for the 4-H clubs in 1940 and deservedly named for him. Erickson Hall has become the biggest single unit on the state fair grounds. Upon his academic retirement, Erickson was employed by General Mills where he was given the task of publishing material in support of club work. One of his booklets, *Guide Posts for Local 4-H Leaders* has exceeded 450 000 copies, and has been distributed abroad.

The only adverse criticism that the reviewer has of the book is that it is too brief. He would like to have known more about almost every person or episode mentioned in the book. For example, it would have been pleasant to have been told more details of how Erickson's farmer father ever managed to get enough cash during his lifetime to send tickets to thirty-four relatives in Sweden.

*Clayton S. Ellsworth, College of Wooster*

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***Frontier Politics and the Sectional Conflict: The Pacific Northwest on the Eve of the Civil War.*** By Robert W. Johannsen. (Seattle, University of Washington Press, 1955, xiii, 240 p., $5.00.)

In writing his *Frontier Politics and the Sectional Conflict*, Professor Johannsen set himself the twofold task of "describing the penetration of national issues to a relatively undeveloped and politically immature frontier area" in an era of national crisis and of ascertaining the response of this area to the issues which produced this crisis. The area that he studied is the Pacific Northwest, and the era that he covered extends, broadly speaking, from the organization of the Territory of Oregon in 1848 to the outbreak of the Civil War in 1861.

Despite the twofold nature of his task—and he never forgot what he set out to do—Professor Johannsen's major concern, I think, was to account for the outcome of the elections in the Pacific Northwest in 1860. Because Washington was still a territory in that year, the only presidential electoral votes cast in the Pacific Northwest in 1860 were those of Oregon. This state Lincoln carried, not by a majority but by a slim plurality. Had the Democratic party remained united, Professor Johannsen concludes, the Republicans would not have carried Oregon.

The problem raised by the Republican victory in Oregon is that of explaining how it was possible in this state for the Democratic party—the party first formed in the Pacific Northwest and the party that was dominant in this region until the eve of the Civil War—to lose the presidential election of 1860. Professor Johannsen finds the solution of this problem in party strife over local issues and in the impact of national issues on the people and the parties of the Pacific Northwest. The Democratic party in Oregon had split over local issues before the differences between Buchanan and Douglas had split the Democratic party nationally; presently the two factions in Oregon became identified with the two national divisions of the party.

As late as 1860, however, the Republican party in Oregon was not strong enough to carry a state election. Lincoln carried Oregon in that year because some Oregon Democrats cast their votes for Republican presidential electors. How is this defection from the ranks of Oregon Democrats to be explained?

The answer to this question Professor Johannsen finds, for the most part, in the attitude of the parties in Oregon to the issue of popular sovereignty; and on this subject he speaks as one having authority. Here and elsewhere he has shown that the doctrine of popular sovereignty made a powerful appeal to the people of the Pacific Northwest, for the people of this region accepted this doctrine, not as a political trick having for its object the reopening to slavery of territory that had been made free by the Missouri Compromise, but as an entering wedge for the establishment of self-government in the territories. So powerful indeed in the Pacific Northwest was the appeal of this doctrine that the Republican party in this region had from its beginning given its adherence to popular sovereignty. By accepting this doctrine, and consequently the Kansas-Nebraska Act, the Republican party in Oregon, as Professor Johannsen points out, took a position contrary to that of the national Republican party. Thus it fell out that in Oregon Republicans and Douglas Democrats had much in common. Accordingly, in 1860 they cooperated to elect to the United States Senate Edward D. Baker, a Republican, and James W. Nesmith, a Douglas Democrat; and in the presidential election of that year many Douglas Democrats voted for Lincoln, "because," as Professor Johannsen affirms, "the local Republican ticket had adopted Douglas' popular sovereignty."

For the people of the nation as well as for the people of the Pacific Northwest, the outcome of the election in Oregon in 1860 was a matter of absorbing interest. Personalities no less than issues

directed attention to this election, for the two most prominent politicians in the Pacific Northwest—men who had become nationally known—were, in the campaign of that year, opposed to both Douglas and Lincoln. Joseph Lane, who for more than a decade had been the leading political figure in Oregon, was the vice-presidential candidate on the Breckinridge ticket, and Isaac I. Stevens, the leading political figure in Washington since the formation of that territory in 1853, was chairman of the national campaign committee of the Breckinridge party.

During the crisis of secession in 1860–61, as Professor Johannsen has shown, the Pacific Northwest, by its devotion to the Union and by its advocacy of compromise as a means of resolving the differences between the discordant sections, revealed its political kinship with the "border region" of the Middle West, the region from which most of the inhabitants of the Pacific Northwest had come. After the firing on Fort Sumter, the Pacific Northwest rallied to the support of the Union. In Oregon, the Republicans and the Douglas Democrats united in 1862 to form the Union party.

Professor Johannsen has written a book that is based upon extensive and competent research. His bibliography is impressive. In general, his account is lucid, but we can not help noticing that now and again he has indulged himself in misleading statements which the editor of his book should not have overlooked. When, for example, we read that Texas in 1844 was "one of Mexico's rebellious provinces," we must enter a protest. Furthermore, when we read, as we can not help doing more than once, that in Oregon the Republicans and the Douglas Democrats "fused," or "united," or "coalesced" in 1860, we must remind Professor Johannsen that such assertions are refuted by convincing evidence that he himself has carefully brought together. No doubt these two parties came close to uniting for the purpose of choosing United States Senators in 1860, but in the presidential election of that year each of them had its own ticket; and Professor Johannsen tells us that Lincoln received 5,345 votes and that Douglas received 4,131 votes. Such slips, however, are of minor importance; they mar but slightly a substantial contribution to the historical literature of the Pacific Northwest.

*J. Orin Oliphant, Bucknell University*

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*The Struggle for the Indian Stream Territory.* By Roger Hamilton Brown. (Cleveland, Ohio, Western Reserve University Press, 1955, 104 p., $3.00.)

Prepared originally as a senior honors thesis at Harvard University, this brief monograph describes the settlement of a 250,000 acre area lying north of the Connecticut River on New Hampshire's northern border. Taking advantage of the dispute between the United States and Canada over the region's ownership, two land speculating concerns, the Eastman Company and the Bedel Company, purchased Indian claims there in the 1790's. For a time they brought in settlers and nurtured a slowly developing civilization, but when New Hampshire tried to assert its authority in the 1820's, they merged their resources to begin an involved legal battle that left the pioneers neglected. Exercising the self-proclaimed right of all frontiersmen to shape their own destiny, these backwoodsmen in 1832 proclaimed the Indian Stream Republic (so named for a river flowing through the heart of the region), and began flirting with Quebec. Three years later New Hampshire ended this minor rebellion by sending its militia northward to defy both the squatters and Canada; in 1842 the dispute was finally settled when the Webster-Ashburton Treaty awarded the region to the United States.

Careful research in the papers of the two companies involved has allowed Mr. Brown, who is currently a graduate student at Harvard University, to present this episode in its true light for the first time: as a speculator-inspired dispute in which the usual sufferers, the frontiersmen, were forced to assert their normal tendency toward self-determination to survive. Hence it serves as a case study in frontier separatism, and deserves the attention of all serious students of western expansion.

*Ray Allen Billington, Northwestern University*

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*The Agricultural Economy of the Danubian Countries 1935–45.* By S. D. Zagoroff, Jenö Végh, and Alexander D. Bimovich. (A Good Research Institute Publication, Stanford. Stanford University Press, 1955, xiv, 478 p., $7.50.)

This is the eighth in a series of some twenty studies on the history of agriculture and food supply during the second World War to be published by the four Danubian countries—Hungary, Rumania, Yugoslavia, and Bulgaria. A general survey of the agricultural history of the entire region introduces and helps to integrate the individual sections on each country.

As the dates affixed to the title indicate, this work includes material not only for the war years but for the entire decade preceding the end of the war. Indeed the symposium goes back still further by offering much historical background material. Judging by the editor's foreword, the decision to go beyond the time span envisaged by the series as a whole was born not only of ambition but desperation. "When the national memoranda were compared," the editor states, "it became clear that their coordination could not yield a full integrated generalization. . . . The investigation was pushed back into the past in order to describe the history of the agrarian relations in that part of Europe and thus widen the background of the study."

The dignified technical language of this statement undoubtedly serves to muffle a cry of exasperation. Professor Robert Lee Wolff of Harvard University has been somewhat less inhibited in stating in the preface of his excellent work *The Balkans in Our Times* (Harvard University Press, 1956), "Balkan statistics . . . often reflect wishful thinking or opinion rather than cold, hard fact. In the past, for example, population figures for areas in dispute between any two countries have been as notoriously unreliable as figures for the grain yields per hectare, for example, are today (when available) in the new Communist world."

The authors of the present volume are, of course, themselves all too painfully aware of the perver-

sity and elusiveness of Balkan statistics. Anyone who imagines that the problem is simply one of political dishonesty would do well to read Mr. Zagoroff's note (pp. 277–79), for example, on the difficulties inherent in Rumanian statistics. Here is a truly instructive description of what happens to statistics in an environment of cultural backwardness, political dismemberment by one's neighbors, irregular censuses, lack of trained personnel on the local level, slipshod methods, and insufficient published materials.

In view of these difficulties, just how valid are the findings contained in a volume in this field? This reviewer agrees with the practical conclusion reached by Mr. Wolff: "Let it suffice to say here that all figures referring to the Balkan countries are automatically suspect: we use them because they are all we have."

Within the limits of such a *caveat*, then, one must be grateful to anyone who approaches the complex problem of Danubian agricultural economics with professional competence and reasonable detachment, as have the four authors of this symposium. They have shown great diligence in amassing data not readily accessible to most scholars. The authors are all economists of Eastern European origin with an intimate knowledge of their area. Their past professional attainments, too numerous to list here, are impressive. Their disciplined training is evident in their coldly factual approach. Only rarely does one glimpse behind the statistical tables the four horsemen of the Apocalypse. The authors deal with a wide variety of related topics: land tenure and reforms, food supply and consumption, foreign and domestic markets for foodstuffs, food industries, marketing organizations, farm income, rationing, price control, wartime devastation, and UNRRA relief, to mention only some.

Not only students of land economics but those interested in East European affairs in general will find the present study worthwhile. The reviewer must admit that, as one belonging to the second category, he has for his purposes learned more about the agricultural problems of individual Danubian countries from such postwar monographs as Henry L. Roberts' *Rumania: Political Problems of an Agrarian State* (Yale University Press, 1951) or Joro Tomasevich's *Peasants, Politics, and Economic Change in Yugoslavia* (Stanford University Press, 1955). This is because these volumes are more directly concerned with relating economic data to social and political problems. Nevertheless, in bringing together in one volume so much material dealing with the agricultural economy of four Danubian countries, this handy survey is very useful. As a study in specifically the food problems of this area during the second World War, this work is a rare contribution.

*Michael Boro Petrovich, University of Wisconsin*

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*Die Wüstungen des ausgehenden Mittelalters.* By Wilhelm Abel. (Quellen und Forschungen zur Agrargeschichte. Band I, 2nd ed., Gustav Fischer Verlag, Stuttgart, 1955, DM 22.)

The long-held view of the economic history of the fifteenth century was that it was a time of transition between the High Middle Ages and the early modern era. As M. M. Postan once observed, it was assumed that everything in the sixteenth century was to be found in the fifteenth "in a degree somewhat smaller than in the sixteenth though somewhat greater than in the fourteenth." Wilhelm Abel, through his books and articles, has been a chief figure in the revision of this conventional interpretation. He, together with a few other European scholars, has shown that actually this period was one of economic decline and contraction, above all in agriculture, and that it differed markedly from the eras of prosperity and expansion that preceded and followed it.

The present volume, dealing with the agricultural aspects of this depression, is an expanded and revised edition of a book that first appeared in 1943. The earlier work was limited mainly to Germany. In the new edition, Professor Abel has included much material from other European lands.

In the first section of the book the author presents and critically analyzes data showing the high incidence of abandoned holdings *(Wüstungen)* nearly everywhere in Central and Western Europe, evidencing a serious decline in population and in economic life. City population, too, went down. The second section deals with the causes of the regression in agriculture. Here Mr. Abel stresses the high mortality and low reproduction rates of the era, and also calls attentions to the effects of the wars and civil strife that filled the period, the wearing out of marginal lands brought under cultivation in the preceding centuries of expansion, and the purely economic causes of the downturn, notably the drop in demand caused by the fall in population, and the diminution in the supply of silver. In the third and last section the impact of the depression upon the peasantry is discussed. Although this class gained economically from the fall in rents and the rise in wages (attributable to the shrinking of the labor market), Professor Abel believes that these benefits were outweighed by the bad effects upon the peasantry of the price slump and the money shortage.

*Jerome Blum, Princeton University*

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*Where There Is Vision: The New Jersey Agricultural Station. 1880-1955.* By Ingrid Nelson Waller. (New Brunswick, Rutgers University Press, 1955, ix, 284 p., $5.00.)

It is difficult to review this book in any mood except the happy one adopted by the author, or it were better to say, felt and transmitted by the author. Mrs. Waller was for many years a part of the New Jersey Experiment Station, as were her husband and son, and the experience was evidently a joyful one, for the book reflects and glorifies the feelings of pleasure and satisfaction that a useful career in a successful public service can give. Not a cloud passes in the serene skies of the twenty-five years (1930-1955) that the book covers; the depression itself, even the war, were only intensifications of the opportunities open to these splendid public servants; scientific scholarship directed by a humane spirit overcame all problems. Without yielding in the least to ironic temptations, one can bask in the glories of the scene by the admirably reflected light of this cheering book and do no violation to the spirit of truth, for the record is made

clear, and it is a great one. If pure pleasure improves the disposition, as certain practical philosophers now try to persuade us, there can be no harm in enjoying the interesting and skillfully written stories that lay before us the record of achievement of this—and, by an implication that we are entitled to make, of other experiment stations.

Nevertheless there is much to be said that is not necessarily so pleasant about the agricultural situation, and that without searching for something to bemoan. There are so many areas in which all efforts at scientific penetration have been resisted by an inscrutable nature and so many more in which no efforts have been made for lack of resources that it would seem worth while to hint at the general lines of attack that have been employed at such a station and to explain how they were chosen. Mrs. Waller's approach to her subject prevents any such query, for she adheres rigidly to the magazine-article approach: The statement of a limited and particular, if disheartening and challenging, problem followed swiftly by a narrative of its triumphant conquest by the scientists. This has the virtue of representing the station workers always in the role of the rescuers of their farmer constituents, who regrettably must thus always appear in the somewhat less sympathetic role of a worthy but rather supine class of unfortunates. A further consequence is that we must miss any searching inquiry into the state of agricultural investigation, for we see neither its whole scope nor its development in terms of staff and administration, nor, furthermore, the real influence exerted by farmers, who in all probability (although it takes evidence to prove this) are far less supine than they are here, no doubt unintentionally, represented by the implication. If particulars are to be supplied, I would ask what the Station is doing about the notoriously difficult soil problem of its state and whether the station's achievements in rural economics and sociology are not somewhat scanty. These and other momentous issues coud not be ignored in a thorough historical study.

But this is perhaps only criticizing the book for not being what it was not intended to be. It is a good, honest job of setting forth a useful chronicle. The only glaring error is the subtitle, which indicates that the story runs from 1880 to 1955, whereas it covers only the period since 1930 with references to the earlier period, which the author covered in a volume written in collaboration with Dr. Carl R. Woodward and published in observance of the Station's semicentennial. This creates a certain sketchiness in the institutional chronicle which the reader presumably may abolish by reference to the earlier work. An index should have been added to this otherwise handsomely produced volume.

*W. H. Glover, Buffalo Historical Society*

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*Whoop-Up Country: The Canadian-American West, 1865-1885.* By PAUL F. SHARP. (Minneapolis, University of Minnesota Press, 1955, xiii, 347 p., illustrated, map, index, $5.00.)

Paul F. Sharp is a historian who knows that the Great Plains extend north beyond the forty-ninth latitude into the Dominion of Canada. This he demonstrated in his *Agrarian Revolt in Western Canada* as well as in an article entitled "The Northern Great Plains: A study in Canadian-American Regionalism" which appeared four years ago in the *Mississippi Valley Historical Review*. The present study is also set in this international, yet regional, framework.

The Whoop-Up Country is a segment of the Great Plains lying astraddle the Canadian-American boundary. As semiarid and treeless as the rest of the region, it developed in the last century a cultural unity. First of all, it was the home of the Blackfeet who hunted buffalo from the Saskatchewan to the Missouri and told around campfires their distinctive tales. Then came the free traders, seeking to exchange whisky and gimcracks for buffalo hides. They established several trading posts on the Upper Saskatchewan and connected them with Fort Benton by the Whoop-Up Trail. Fort Benton at the head of navigation on the Missouri served as their headquarters, while the trail provided a north-south regional integration which lasted until the advent of the transcontinental railroads. Over it traveled supplies not only to the trading posts but also to the Northwest Mounted Police and their Indian wards.

Professor Sharp retells this bit of plains history in a charming manner—the invasion of the free traders, the organization of the Mounted Police, the controversial Cypress Hills Massacre, the relations of Sitting Bull with Her Majesty's government. Particularly well done is his account of the role of the principal Benton entrepreneuers, Isaac G. Baker and Thomas C. Power, in the economy of the area. He also distinguishes himself as a social historian by his narration of life in Fort Benton and on the trail. Unfortunately, these chapters are not balanced by a similar chapter on life at Fort Macleod.

Contrasts between the American and Canadian occupation of the plains supplement the narrative. The author contrasts at some length the manner in which the two societies handled law enforcement and the Indian problem. He believes that the differences are due to the greater centralization of power in the hands of the Canadian federal government. Eastern heritage, he concludes, conditioned institutions on the plains as much as environment. "Inherited institutions also underlay the contrasting experience of the two peoples in the same physical setting; neither society was bent to the will of environment in matters of law, either in its character or its enforcement (p. 101)." Nevertheless, Canadian law enforcement was affected by Western environment; the use of cavalry by the Northwest Mounted Police was an adaptation to the great distances of the plains. As Professor Sharp confesses, "Mobility was a key concept in the strategy of the police. They avoided the folly of using infantrymen to control mounted nomads . . . (p. 103)."

Since the period chosen for discussion antedates the agricultural era in this part of the plains, references to agriculture are limited to the Blackfoot culture of tobacco, the attempt to teach Indians to farm at the Sun River agency, and the introduction of sheep and cattle grazing. It is during the agricultural era that environmental influences become dominant, forcing plainsmen to develop a new agriculture based upon irrigation and dry farming. It was in the Whoop-Up Country that the Koole brothers devised strip farming and C. S. Noble invented the Noble blade.

*Robert G. Dunbar, Montana State College*

## ACTIVITIES OF MEMBERS

James C. Bonner of the Georgia State College for Women discusses "Sherman at Milledgeville in 1864," in the August, 1956, issue of the *Journal of Southern History*.

Arthur C. Cole, professor of history and chairman of the department at Brooklyn College, will retire from active service at the close of the current academic year.

E. Merton Coulter of the University of Georgia is the author of "The Confederate Monument in Athens, Georgia," *Georgia Historical Quarterly*, 40:230–247 (September, 1956).

Gary S. Dunbar, formerly in the Department of Geography at Louisiana State University, is now at Longwood College, Farmville, Virginia.

Rudolf E. Freund, formerly at the University of North Carolina and a member of the Agricultural History Society since 1939, died December 1955.

John D. Hicks of the University of California delivered the presidential address at the forty-eighth annual meeting of the Pacific Coast Branch of the American Historical Association. His subject was, "What is Right with the History Profession?"

Donald L. Kemmer is the joint author of an economics textbook entitled *Comparative Economic Development* (New York, McGraw-Hill Book Company, 1956). It includes brief discussions of the agricultural development of the United States, Great Britain, Soviet Russia, and Germany.

Eugene M. Lerner of the Federal Reserve Bank of Chicago discusses "Investment Uncertainty during the Civil War—A Note on the McCormick Brothers," in the March, 1956, issue of the *Journal of Economic History*.

John H. Moore is the editor of "South Mississippi in 1852: Some Selections from the Journal of Benjamin L. C. Wailes," which appeared in the January 1956 issue of the *Journal of Mississippi History*, and of "The Textile Industry of the Old South as Described in a Letter by J. M. Wesson in 1858," *Journal of Economic History*, 16:200–205 (June, 1956). Mr. Moore, formerly at Delta State College, is now at the University of Mississippi.

Dr. Helmer Olsson, Agricultural Counselor of the Swedish Embassy, has left that post to return to Sweden to organize and direct the Statens Prisoch Kartell-Namnd for the Swedish government.

John T. Schlebecker, formerly at Montana State University, is now a member of the Department of History and Government at Iowa State College, Ames.

Wendell H. Stephenson, of the University of Oregon, is teaching at Louisiana State University during the summer of 1956.

## NEW EDITOR

Dr. D. A. Brown, Agricultural Library, University of Illinois, Urbana, will assume his duties as editor of *Agricultural History* with the January issue. Contributors should henceforth direct their manuscripts and inquiries to him.

NOTE: The delay in the publication of the October issue was caused by the temporary loss of the maps at the printing plant.—Ed.

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